Exhibit D

August 9, 2023

Ms. Florence Murray
Murray & Murray Co., L.P.A
111 E. Shoreline Dr.
Sandusky, Ohio 44870

Re: **MICHAEL LATELY**
DOB: 12/20/55

Dear Ms. Murray:

I was contact by your office in May 2023 to consider performing an independent medical examination of Michael Lately. As there were no direct conflicts of interest, I agreed to participate in a medical record review and independent medical examination of Mr. Lately on July 24, 2023 at his home located at 1168 West Main Street, Apartment 5, Bellevue, Ohio 44811. Present for the examination was Kate Smith, RN/Life Care Planner, Michael Lately, Christine Lately, home health aide Katie. Mr. Lately's nurse, Abbie, stopped by to look at this suprapubic catheter. The evaluation started at approximately 11:00 am and lasted approximately 1 ½ hours. Michael was very forthright with answering questions and participated wholly in the examination. He understood the purpose of an independent medical examination and signed a document attesting that no doctor-patient relationship was being formulated today.

RECORDS REVIEWED/CHRONOLOGY
(Received via link on 05/19/23, 07/24/23, 07/31/23)

The Bellevue Hospital	02/04/23
Med1Care Findlay	10/4/21-01/27/23
The Bellevue Hospital Rehabilitation Services	10/11/21-01/12/23
Advanced Neurologic Associates, Inc.	04/26/21-01/05/23
ProHealth Physicians Group	05/13/21-10/07/22
Ohioans Home Healthcare	12/11/20-07/30/22
Firelands Regional Medical Center	12/13/20-04/20/22
Day in the Life Video, Michael Lately	02/01/21
Firelands Physician Group	12/03/20-01/14/21
Defiance Healthcare & Rehabilitation	11/19/20-12/10/20
Mary Free Bed Rehabilitation Hospital	10/27/20-11/19/20
Twilight Gardens Nursing & Rehabilitation	09/22/20-10/27/20
Cleveland Clinic Rehabilitation Hospital, Avon	07/14/20-09/22/20
Mercy Health	06/28/20-07/14/20
Sandusky County EMS	06/28/20
911 call	
Traffic Crash Report	06/27/20
Photos of vehicle	
Complaint	06/27/22

PMH: gunshot wound to left hip with bullet fragment remains (19 years old)
PSH: N/a
Allergies: NKDA

DATE	REF	NOTES	PAGE #
6/27/20	537322	**Traffic Crash Report** Crash date 6/27/20. Times 11:41pm	1-14

Unit #1 and Unit #2 were both traveling eastbound on I-80. Unit #2 was established in the left lane after merging onto the lanes of travel. Unit #1 approached and struck the travel of Unit #2.

Unit #1 driver is Michael Lately. Vehicle is a 2014 gray Chrysler 300. Disabling damage to all areas of vehicle. Contributing circumstances: followed too close. Posted speed 50mph. Suspected serious injuries. Alcohol suspected. Air bag deployed front. Not ejected. Trapped, freed by non mechanical means. Car towed.

Unit #2 driver is Patrick Ferrell. 2015 gray Volvo 760 series semi-tractor. Disabling damage to the back end and back left of vehicle. Posted speed 50mph. Unit speed 15mph. No apparent injury. Not treated/treated at scene. Airbag not deployed.

Narrative:
Unit #1 is currently at St. Vincent Hospital in Toledo, Ohio. I have been informed by the hospital that he is on a ventilator system.
Damage analysis: The entire vehicle was heavily damaged, ripped apart and destroyed. The roof of the vehicle was ripped up from the vehicle, hanging over the rear end of the vehicle and partially in the air. The entire front end portion of the vehicle's frame was bent, twisted and broken. The passenger rear fender was partially crushed and dented. The passenger side A, B, and C pillar were completely crushed and twisted. Both the front and rear passenger side doors were crushed, twisted and removed from the vehicle. The entire front fender section of the vehicle was crushed, twisted and removed from the vehicle. The passenger side front tire was removed from the bent wheel and sitting on top of a tire from the trailer of Unit #2. The entire front end of the vehicle was destroyed and missing from the vehicle. Radiator was heavily damaged. The driver's side window and entire windshield was destroyed and pushed back into the vehicle. The driver's side front fender and rear door had minor scratches and no other damage. The drivers side rear fender was heavily scratched and dented. Entire rear bumper was heavily damaged and removed from the vehicle.

Unit #2-2015 Volvo 760 Series, 2008 Stroughton Trailer
Damage analysis: The rear of the trailer was heavily damaged from contact with Unit #1. The rear left door was caved in a the bottom, exposing the inside of the trailer. The left door was heavily scratched and gouged from contact with Unit #1. Middle left door hing was slightly bent. Lower metal band of trailer was caved in on left side, twisting some of the metal. Both left side rear axle tires were knocked off of their rims, one being under the front right tire of Unit #1. A large piece of metal from Unit #1's vehicle was jammed between the trailers rear axle and the bottom of the trailer.

Officer notes: Unit #2 was parked on the right shoulder inside the barrels of the construction zone. Unit #2 entered the lanes of travel once traffic was cleared, established himself in the left lane and began accelerating to approximately 15mph. Unit #1 was traveling through the construction zone in the left lane at an unknown speed. Unit #1 struck the rear portion of the trailer of Unit #2. Unit #1 struck the trailer of Unit #2 with such force the vehicle went under the trailer, reaching and making contact with the trailers rear axle. Unit #2 had enough movement after contact that the power unit and trailer rolled enough for Unit #1 to no longer be underneath the trailer. Unit #2 called 911 soon after the crash occurred. During my on scene investigation, I was able to smell a strong odor of an alcoholic beverage from the vehicle of unit #1. I was advised by Woodville EMS that the injured driver of Unit #1 did claim to have been drinking alcohol, however the amount was not specified. Any alcohol related charges, if applicable, will be filed along with any other enforcement action once the investigation is complete.

Weather condition: Weather was moderate to heavy rainfall with heavy cloud cover. Roadway was very wet with some standing water. Traffic was light to moderate.

		Construction zone was a single lane closure, leaving the center and left lanes open with a speed limit of 50 mph. Witness statement: Patrick Ferrell, Jr. I was re-entering the highway strip nothing was coming close, I was hit hard. Not even going 15mph. Was on the shoulder. He got off because it was safer/ had to pee. Why did you go all the way into the left lane? It was a single lane and any other lane was behind the barrels. Did signal as merged into the lane of travel. 7/23/20-Notes from Sgt. Dylag: Michael or Christine: After I had spoken with each of you on the phone this morning, I discovered that there is an additional charge for minor-misdemeanor possession of marijuana along with the traffic citation we had discussed for Assured Clear Distance Ahead. I apologize I did not see that at first. I would suggest that you allow your attorney to take it from this point.	
6/28/20	537120	**Sandusky County EMS** Dispatched 23:49. On scene 23:59. Departed scene 00:33. Address 616 Neil Street. Sandusky Ohio 44870. CC: Altered mental status. Secondary complaint: "Help me I can't feel my legs". Initial BP 53/42, increased to 83/56, HR89, RR 27, 88%RA. GCS initially 11 (2/4/5). Unresponsive and GCS 3. NSR on monitor. Crew was called to above location for an MVC. Crew was delayed with response d/t delay in dispatch. Upon arrival crew found pt driver's side resting against the median in the east bound lanes of Ohio Turnpike. According to the semi driver, the car rear-ended the semi trailer at an unknown rate of speed. The semi driver was unsure of any other details relating to the accident. No other bystanders present. The semi appeared to have pulled forward to release the vehicle from the semi trailer. The patient was restrained driver of the vehicle, seat belt was cut from the body. Crew noted major damage and intrusion of the vehicle in all compartments of the vehicle. Large debris field present. Airbag deployment noted in the front, side and knees. Due to the damage, the patient was able to be reached through a small opening on the passenger's side; pt eventually was reached on the driver's side after the tow truck pulled the vehicle away from the median. The patient admitted to EMS that he had been drinking ETOH this evening. Pt was treated and transported to MSVMC for further evaluation.	22-26
6/28/20-7/14/20	537120	**Mercy Health**	
	537120	**6/28/20-ED Provider Note** Middle aged AA male in high speed MVC, rear-ended a semitruck. He arrived by EMS intubated and sedated, apparently stated to the EMT's that he could not feel his legs prior to "ablation". Prolonged extrication, intubated on scene. Intubated 2/2 GCS less than 8. Pt not responding to pain upon initial assessment, no breath sounds noted on left side, ETT pulled back with bilateral breath sounds. 2cm laceration noted to right eyebrow medial portion, had bilateral conjunctival "injection" with concerns for corneal abrasion on left side, pinpoint nonreactive pupils, no gag reflex when attempting to visualize tube, no battle signs bilaterally, tympanic membranes are intact with no blood in external ear canal, blood noted to right naris, no trauma noted to anterior neck, skull or scalp. Exam: Intubated, nonresponsive to pain, no gag reflex. 2cm laceration to anterior portion of right eyebrow. Bilateral pinpoint pupils, concerns for corneal abrasion on left side of left eye. Mechanical breath sounds. Initial MDM/plan: Went to CT scan which was negative for acute pathology, immediately transferred to surgical ICU for management. Labs:	1-12

		Ethanol- 161 Ethanol percent- 0.161 Urine drug screen: positive for cannabinoid CT head: No acute intracranial abnormality. Right orbital floor blow-out fracture CT cervical spine w/o contrast: No acute abnormality. Developmentally small spinal canal with multilevel disc protrusions as above (There is a borderline small bony spinal canal on a developmental basis from C3 to C7. Anterior spondylosis in the mid to lower cervical spine. There are multilevel disc protrusions combine with the developmentally small canal causing mild to moderate cord flattening, particularly left paracentrally at C3-C4 and C4-C5.) CT thoracic/lumbar spine/CT C/A/P: No acute injury in the chest, abdomen, pelvis, thoracic or lumbar spine. Multiple ballistic fragments in and about the left hip. Impression: 1. MVC Admitted to trauma ICU	
	Mercy 537120	**6/28/20-Trauma H&P Note** Admitted to ICU. Precedex and fentanyl sedation for pain management. Assess LE motor function once off sedation. MAPs >65. CTLS CT images negative for injury. Clear cspine once extubated. OMFS consult for orbital blow out fracture. Exam: GCS 3i. Covered in glass. Multiple abrasions. PERRL. Normal ROM. Intubated. OG.	14-21
	537121	**6/28/20-MRI Cervical/thoracic/lumbar spine** Findings: Cervical: There is a straightening of the normal cervical lordosis with mild to moderate multilevel degenerative disc disease. Severe canal stenosis is noted at C3 and C4, in part d/t short pedicles. There is signal abnormality within the central aspect of the cord spanning a length of approximately 3.4cm at this level, which could reflect a nonhemorrhagic contusion given the trauma history. There is severe degenerative neural foraminal stenosis from C3-4 to C5-6. No acute fracture visualized; however, there does appear to be fluid within the interspinous spaces, particularly at C3-4 which may reflect ligamentous sprain. Thoracic: No acute fracture, cord normal in size and intensity. Lumbar: Normal lumbar lordosis. Multilevel degenerative disc disease, moderate in severity at L4-5. Moderate neural foraminal stenosis at L4-5 and L5-S1. Impression: Confluent signal abnormality within the mid cervical cord, worrisome for nonhemorrhagic cord contusion given the trauma history. Recommend close interval f/u, including a contrast exam to exclude underlying mass.	32-36
	537121	**6/29/20-Neurosurgery Consult Note. Jennifer Cullison, DO/signed by Zubair Ahammad, DO** Neurosurgery consulted for concern of abnormal MRI findings. Per char pt was c/o numbness and tingling prior to intubated and arrival to ED. All exams in chart show pt was intubated and sedated, no documentation of extremities having spontaneous movement. During exam pt was not able to move all 4 extremities spontaneously. Pt did not localize t pain, neither flex nor extend to pain. Pt is alert and oriented, blinking eyes while answering questions. Pt was found to have an abnormal MRI of cervical spine some for nonhemorrhagic cord contusion. Evaluated by attending and plan for cervical posterior decompression. Exam: Pt uncomfortable and unbale to move all 4 extremities, blinking eyes to answer questions. CN II-XII grossly intact. 1/5 right and left UE. 0/5 BLE. Abnormal touch BUE and BLE. Diagnosis: 1. MVC	81-89

		2. Eyebrow laceration 3. Orbital wall fracture 4. Acute respiratory failure 5. Blood alcohol level of 120-199mg/100ml Assessment/plan: 64 y/o with c/o quadraparalysis after MVC with acute cervical cord injury. Plan for OR for posterior cervical decompression. Attestation: left bicep and tricep 1/5 with no LE movement. Unable to reliably assess LE function. No rectal tone. Weak BC reflex. C3/4 cord contusion with ASIA A. Emergent decompression in OR.	
	537121	**6/29/20-Operative Note** Surgeon: Zubair Ahammad, DO Dx: SCI Procedure: Laminectomy C3, C4, C5; posterior cervical fixation with lateral mass screws C3, C4, C5; posterolateral arthrodesis C3-C5; use of morselized autograft via same incision; use of fluoroscopy No complications. Kept intubated and returned to the ICU.	89-91
	537121	**6/30/20-** Cervical x-ray impression: s/p C3-C5 posterior decompression and fusion	17-18
	537121	**7/1/20-**Extuabted and placed on high flow NC. Tolerated well	11
	537121	**7/3/20-PMR consult note. Sanjay Shah, MD** Consulted for appropriate placement upon discharge from acute care. Quadriplegia s/p post cervical laminectomy C3-C5, incomplete quad with some improvement, collar cleared, had early PEG and trach on bowel program foley notes with C4 incomplete quadriparesis. Underwent C3-5 laminectomy lateral mass screws, arthrodesis d/t SCI 6/29/20, JP drain removed, surgery signed off, f/u in 2 weeks. Functional history: PLOF independent in all activities ST: presents with mild cognitive deficits characterized by impaired delayed recall. Pt with no dysarthria, no OM deficits. Mildly agitated throughout evaluation. Wt: 170 lbs. Impression: 1. MVC multiple trauma 2. Incomplete C4 quadriparesis s/p C3-5 laminectomy/arthrodesis 3. Suspect concomitant TBI-seroquel? 4. Neurogenic bowel and bladder-on bowel protocol, foley currently 5. Blood loss anemia 6. Low blood pressure-midodrin 7. Pain-Tylenol, Motrin, Roxicodone, Robaxin Recommendations: C4 incomplete quadriparesis, TBI. PT/OT/ST. Would benefit from acute inpatient rehab.	92-96
	537121	**7/4/20-Opthalmology consult note. James Ravin, MD** Pt c/o double or blurry vision OD and is patching the eye to get rid of sx. Come on with the recent MVA. No hx of eye surgery. Was a Golden Gloves boxer. Wears bifocals but they are unavailable. Unsure who he's seen for eye exams. Has orbital wall fracture on testing. Exam shows 20/200 vision each eye tested separately at near with vision card. Anterior segments are clear except for large subconjunctival hemorrhage OD. Bruises in right brow region. Details of fundi difficult to assess through small pupils and dilation. He describes diplopia vertically on looking upward, not down, right or left. Diplopia resolves after a few seconds of upgaze. Impression: Orbital wall fracture Variable diplopia, consistent with fracture and trauma to EOMs. Subconjunctival hemorrhage OD Plan: Observe for change. May well disappear as he heals. F/u as outpatient.	96

	537121	**7/14/20-Discharge Summary** Hospital course: MVC intubated on scene when brough into the ED pt found to have a right orbital wall fracture with right eyebrow laceration and a cervical contusion. Taken to OR next day for posterior C-spine decompression and was transferred back to the ICU 6/29/20. Neuro status improved and was able to be extubated 7/1 and a general diet was started the next day 7/2. Pt continued to improve and started having limited movement and his arms and legs and was deemed medically stable enough to be transferred out of the ICU. Pt began having sharp shooting pains that would run the length of his legs and arms. Pain meds and regimens were altered to compensate for new sx. Continued to improve and was able to have his brow stitches removed 7/8. Had a one time bout of chest pain, EKG ordered, no acute findings 7/12. Discharged to acute rehab. Meds at discharge: Dulcolax suppository, gabapentin, melatonin, oxycodone prn, thiamine, baclofen, colace, lovenox, miralax. F/u with Lauren Borell, DDS, Zubair Ahammad, DO in 2 weeks, James Ravin MD eye care.	96-107
7/14/20-9/22/20	Lately CCRH	**Cleveland Clinic Rehabilitation Hospital, Avon**	
	Lately CCRH	**7/14/20-**Photos of posterior neck incision with staples Photo of posterior neck incision 7/19/20, 7/31/20, many coccyx wound photos redacted and unable to visualize.	3031, 3038-3064
	Lately CCRH	**7/14/20-OT Initial Evaluation** Prior functional status: independent. Employed full time. Interest: sports (golf, martial arts), +driving. Current status: Total feed, total assist for all IADL/ADLs, Cognitive skills: impaired memory, decreased safety awareness or impaired judgment, decreased awareness of deficits and further evaluation required. Impaired functional endurance. Wears glasses, glasses lost in MVA. Summary: Presents to CCRH Avon with decreased sitting balance and core strength, endurance, overall strength and functional use of UEs, and independence with I/ADLs and transfers. Cognitive deficits present, see speech.	518-525
	Lately CCRH	**7/14/20-PT Initial Evaluation** Pt sitting up in power wheelchair upon entry. Posture impaired (very low trunk control). Active strength in quads only for LE. Total assist. Unable to control power wheelchair. 0/5 strength to BLE except right and left knee extension both 3-/5. PLOF: Lives with his wife and working full time driving a Tow Motor. Current level of function: Full sensation to LEs during gross assessment. Displays no active muscle contractions except bilateral quads at 3-/5. Does have bilateral spasms BLEs in hip adductors and flexors with PROM of LEs. Currently using Hoyer lift for transfers to and from bed/wheelchair and unable to use his joystick for w/c propulsion d/t decreased UE and finger activation.	746-751
	Lately CCRH	**7/14/20-ST Initial Evaluation** Summary: Pt lives in Sandusky with wife, reports managing meds and finances independently, has children in the area who are able to assist as needed. Currently works full time operating machinery at a factory. Pt reports "a little change" in cognitive linguistic functioning, daughter notes significant change in functioning, reporting "slow thinking and really bad memory". Notes demonstrating complex comprehension skills WFL. Expressive language grossly WFL, only occasional word finding deficit. A&O however significant difficulty recalling recent events (meals, medical situation, cause of injury). Complex attention is impaired with patient becoming easily irritated when challenged. Recommend regular diet with thin liquids, 1:1 assistance. Problem list: cognitive communication disorder.	957-961

	Lately CCRH	**7/15/20-PMR H&P Note. Saman Ghaffari, DO** Dx: Incomplete C4 quad CC: weakness HPI: 64 y/o male presented to ED St. Vincent Hospital in Toledo following MVA 6/28/20. Pt was rear-ended by semi truck. Unknown LOC. GCS <8 on the scene. Prolonged extrication. Pt stated he was unable to feel or move his legs. Intubated on scene and placed in C collar. Found right orbital blowout fracture. Initial CT neck no acute abnormality other then congenital narrow spinal canal. 6/29 neurosurgery underwent C3-5 decompression, lateral mass screws and arthrodesis. Extubated postop. Trach and PEG placed early. D/t LOC and low level GCS on admission PMR consult concerned for concomitant TBI. Eventually PEG and trach removed. C-collar cleared by neurosurgery. Complains of intense whole body spasm in chest into toes in trunk and LE flexion. Has some rectal sensation, has bladder fullness sensation get cath'd q4hours. Get orthostatic signs/symptoms, placed on midodrine. Social history: Lives with spouse in home in a 1 level home with 1 stairs to enter. Prior function=independent. Current level of function: Grooming TA, max assist for UB and LB dressing, max assist bed mobility, transfers, toileting and gait. Exam: Skin no open lesions, incision staples C/D/I. Increased reflexes BLE>BUE. Increased tone BLE. MMT: BUE 0/5. RLE proximal 2/5, distal 0/5. LLE proximal 2/5, distal 0/5. Sensation reduced but present in all distal dermatomes, deep pain sensation intact in all extremities with ungal pressure. CN intact. A&O x2. Named 4 animals in 30 seconds (normal is 12). Follows all commands. Assessment: 1. Traumatic C4 incomplete quad s/p C3-5 decompression and fusion 2. Moderate TBI with LOC and PTA 3. Central cord syndrome 4. Right orbit fracture 5. Hypotension from quadriplegia 6. Acute respiratory failure s/p trach 7. Dysphagia 8. Cognitive impairment 9. Spastic quadriplegia LE>UE 10. Depression 11. Cognitive impairment from TBI 12. Neurogenic bladder 13. Neurogenic bowel 14. Anemia 15. Protein calorie malnutrition 16. Gait abnormality Plan: Internal medicine consult. Psychologist Dr. Van Keuren consult and eval. Baclofen 20mg TID and prn Zanaflex. Bowel program-Colace TID, senna 2 qhs, Dulcolax suppository qam, bladder retraining and IC q4h, consider terazosin. Nutritional support. GI prophylaxis. Fall prevention, pain management with Tylenol, gabapentin, oxycodone. DVT prophylaxis-lovenox. Rehab plan: PT/OT/ST, recreational therapy, rehab nursing, case management. Therapy schedule will be 3hrs/day x 5-6 days. Disability includes dressing, grooming, feedings, transfers, locomotion, bowel/bladder management, communication, cognition.	5-8
	Lately CCRH	**7/15/20-IM Consult Note** Consulted for medical management.	469-472
	Lately CCRH	**7/16/20-RN Note** Pt emotions continuously changing, from cooperative and friendly to irritable and angry. RN note 7/17 notes pt can feel when his bladder is full and alerts staff. Refusing dressing changes of surgical incision.	487-497

		RN note 7/19 notes very anxious, angry, accusatory to staff, refused many meds, continues to be very rude to staff, argumentative. Numerous other RN notes or refusal of meds, disrespectful to staff, refusal to turn. Notes total feed for meals. Begins voiding via condom cath. Incontinent of stool. Still with some urinary retention needing ISC. 9/11/20-continues to refuse to be turned and repositioned. Refuses some meds.	
	Lately CCRH	**7/20/20-ST Weekly note** MoCA converted score of 22/30 indicating moderate cognitive linguistic deficits including impaired memory and higher level problem solving. Pt participating in ST with encouragement (refusal past few session) and demonstrating fair progress now with mild cognitive deficits.	964
	Lately CCRH	**7/23/20-PMR Progress Note** Orthostatic hypotension with standing frame SBP dropped to 80s. c/o too many pills. Spasm continues. Loose stool incontinence will d/c senna. Able to initiate 90% of movement for toothbrush to mouth, including bicep flexion and slight shoulder flexion noted. OT assist to placement of toothbrush in all areas of mouth and reciprocal movement involved in brushing.	61-64
	Lately CCRH	**7/25/20-IM Progress Note** Pt is agitated, in pain. Requires straight cath. Non compliant at times with meds and labs. Pain 9/10 with spasms. Sleep disturbance, mood disorder and recent psychosocial stressors. + headache, joint pain, neck/back pain, muscle pain, neurogenic bladder, retention, constipation, malaise.	67-69
	Lately CCRH	**7/27/20-Nutrition therapy** Po intake 75-100% of regular diet and ensure enlive TID Admission weight 167lb 3oz.	73
	Lately CCRH	**7/27/20-OT weekly progress note** Still max to total assist for all ADLs and functional transfers. Pt with gradual strength and function returning to BUE.	
	Lately CCRH	**7/28/20-Psychology note. Cynthia Van Keuren, PsyD** I have made several attempts to see Mr. Lately but he firmly and consistently declines my services. On one occasion he did so in front of his sister. I agree that he would benefit from pscyh services.	83
	Lately CCRH	**7/28/20-IM Progress note** Pt is agitated, frustrated, has been started on Depakote. On abx for UTI. Still noncompliant with meds, labs and medical advice. Pt has daily BMs. c/o less pain/spasms. Eye irritation/conjunctivitis 7/30/20. Eye drops ordered. 8/1/20-not sleeping well. Every time turned q2hours LE goes into spasm. Will increase Depakote for mood and add valium at night. Total assist bed/toilet mobility. Upright sitting mod assist. 8/5/20-Angry, interrupting, explained reason I need to do H&P. Pt has low grade fever. Refused CT lung. Still needs straight cath. Towards end of stay notes using urinal with assist.	87-90
	Lately CCRH	**8/3/20-OT weekly progress note** Max to total assist with all ADLs and functional transfers and bed mobility but improvement in BUE function. AE with use of universal cuff and bath mitt introduced. Pt frequently refuses participation with ADL tasks. **8/3/20-PT weekly progress note**	723, 936

		Continues to require Hoyer lift for all transfers as well as total assist for bed mobility. Tolerating 30° on tilt table for greater than 6 minutes without BP changes, but limited at greater elevations. Continues to have limited participation at times and increased frustration with his current functional mobility. Able to self propel in wheelchair using head array with distant supervision.	
	Lately CCRH	**8/7/20-PMR Progress Note** Wound care debrided sacral wound to remove slough and aid in healing, incontinent of stool.	138-141
	Lately CCRH	**8/7/20-Cardiology Consult Note** Consulted for chest pain and nonspecific EKG. EKG unchanged from 7/18/20. My clinical impression chest tightness from muscle spasms. If at hospital would get an echo.	477-484
	Lately CCRH	**8/9/20-Cardiology Consult Note** Seen for atypical chest pain. On Lovenox. No DVT or CT EP hx. One trip to Avon since here for chest pain, felt to be muscle spasm related. EKG non specific? LVH repolarization. No further pain. Echo in future may help. No past cardiac history.	151-157
	Lately CCRH	**8/12/20-PMR Progress Note** Continues with hypotension on tilt table, will have to add florinef in addition to abd binder, ted stockings and midodrine. Improved demeanor noted this session.	171-175
	Lately CCRH	**8/13/20-Internal Medicine Progress Note** Smiling laying in bed. Best mood I have seen him in since admit. KUB no acute process. Recurrent chest pain. Abnormal d-dimer most likely d/t trauma. Hypotension. Moderate TBI. Spastic pains. Quadriplegia. Traumatic C4 incomplete quad s/p C3-5 decompression and fusion. Central cord syndrome. Right orbit fracture. Depression. Neurogenic bowel and bladder. Anemia.	180-182
	Lately CCRH	**8/17/20-PT weekly note** Total assist, Hoyer lift. Performing tilt table tolerance and is tolerating 90° without symptoms. Demonstrating increase LE strength and improved core stability, but remains limited by core strength for standing attempts. Demonstrating improved attitude and participation in therapy sessions.	940
	Lately CCRH	**8/21/20-Poadiatry Consult Note** Toes are flexed over the PIPJs and DIPJs and the 1st met head is prominent and the hallux is in abduction. Pulses of DP are 0/4 right and left. PT 0/4 right and left. Absent hair, mild edema and skin turgor is reduced. No open sores on feet. Heels intact. Nails are thick yellow crumbly deformed hypertrophic and deeply incurvated on the right and left digits. Skin is very xertoic and he has been using lotion in the last day and things have improved. Current conditions: onychomycosis, hammertoes, bunions, edema, xerosis. Nails on right and left were reduced and thin. Pt was advised on care that should be ongoing and should seek podiatry care after being discharged.	484-485
	Lately CCRH	**8/30/20-PMR Progress Note** Total assist for transfers, uses neck control power wheelchair. 8/26 performed gait training using the body weight support on ceiling track. Performed with BUEs resting on Eva walker to increase comfort. Able to walk 16 feet. Need cueing. Complains of problem with swallowing. Refused AM meds. Refused PT/OT the entire weekend.	306-313
	Lately CCRH	**9/1/20-ST Swallow Evaluation** MBSS completed this date. Recommend regular diet, thin liquids, pills crushed in pureed, 1:1 assistance d/t cognitive or motor deficits. Suspect some degree of esophageal dysphagia as evidence by visualization of intraesophageal reflux with occasional retention. May benefit from f/u with GI should problems persist.	954-957
	Lately CCRH	**9/14/20-OT weekly note** Using wrist support with universal cuff to complete eating tasks with max assist. Mechanical lift for all transfers and total assist with LB bathing and dressing. Improving LUE functional strength, limited by right shoulder pain and spasms in RUE with active movement. **9/14/20-PT weekly note**	

		Hoyer lift d/t limited core stability and spasms limiting safety with slide board transfers. Displays improved core strength but continues to have some variability especially after days of refusal to get up into wheelchair. Occasionally displays some agitation.	
	Lately CCRH	**9/16/20-OT Note** Worked on self feeding wight left wrist splint with universal cuff. Requires assist for positioning of bowl and plate to allow for scooping/stabbing food d/t decreased pronation and IR requirements. Once loaded, pt able to bring fork to mouth without assist. PT takes approximately 10 bites prior to request of d/cing activity taking "too long". Pt requests assist the remainder of meal. OT notes often mention irritability, hesitancy, some refusals of OOB activities, doesn't like new caregivers. Overall gets OT sessions, even if it's just PROM.	705-708
		Nursing flowsheets documented at discharge that pt was mostly continent and voiding in urinal with assistance, and needed assist/total assist for feed.	
	Lately CCRH	**9/18/20-PMR Discharge Summary. Saman Ghaffari, DO** Hospital Course during inpatient rehab: Pt received PT for ROM, transfer training, endurance/balance, fall prevention and gait training with appropriate AD, OT for ADLs/equipment/functional transfer evaluation and training, and ST for language evaluation and speech re-education. Pt was stable throughout rehab course without major medical complication. Pt participated in all therapies and although with significant gradual improvement, would benefit from continuing skilled therapies and nursing at SNF prior to returning home. 7/16-sent UA/C&S, +UTI, Macrobid x7days 7/18-had CP/tightness/SOB, EKG, sent to ER for further evaluation, workup negative, left AMA 7/19-refused to get x-ray, EKG And lab work ordered 7/20-changed Celebrex and Tylenol to prn, increased baclofen to 30mg TID, add additional gabapentin 300mg qhs 7/21-increased Colace to QID 7/23-midodrine TID, reduce gabapentin 300mg TID, d/c senna, d/c folate, reduce protonix to at night 7/27-add terazosin 5mg qhs, Macrobid again for 7 days 7/28-depakote 250mg qhs 7/30-tobradex for 7 days, add baclofen 10mg at night 8/1-increased Depakote 500mg at night, add valium 2mg at night 8/2-add trazadone 150mg at night 8/4-fever workup 8/5-venous dopplers 8/6-venous dopplers negative. CP with EKG resolving. Cardiology consult 8/7-currette to sacral wound, referral to wound, RN pictures, reduce Colace to TID. 8/8-d/c Depakote, add Effexor 75mg/day 8/11-condom cath for self-void, d/c daily Dulcolax and follow self defecation, senna 2at night 8/12-florineg 0.1mg/day for orthostatics 8/14-d/c Colace 8/15-dulcolax scheduled nightly 8/18-d/c Carafate, Dulcolax po, lactulose BID. Add Colace TID. Tobradex for 7 days 8/19-d/c scheduled Dulcolax 8/21-podiatry consulted, vinegar soaks daily 8/25-midodrine severely reduced, increased to 5mg TID, will need to feel comfortable with some supine HTN to combat severe orthostatic hypotension 8/31-increased baclofen 40mg TID, MBSS tomorrow 9/1-increase protonix to BID, MBSS c/w reflux 9/7-add dantrium 25mg QID And titrate for spasticity 9/9-order universal cuff built into RHO 9/11-increased RUE pain and edema-will check doppler	8-19

		9/12-left knee painful/swollen and x-ray negative for fracture. RUE doppler negative for DVT 9/13-lidoderm patch to left knee; refusing bloodwork/LFTs 9/15-LFTs WNL, increase dantrium 50mg QID 9/17-COVID test for SNF placement 9/21-Discharge delayed d/t original SNF with COVID+ patients on lockdown and needed to find new facility and get insurance authorization. Med list: Tylenol q8h prn, amlactin cream daily, artificial tears prn, baclofen 40mg q8h, Dulcolax suppository daily prn, Colace 100mg TID, lovenox, Pepcid 20mg BID, florinef 0.1mg daily, Flonase BID, Neurontin 300mg qhs, duoneb prn, lidocaine patch daily to left knee, melatonin 6mg qhs prn, midodrine 10mg qam, midodrine 5mg BID, multivitamin, Zofran prn, oxycodone 5mg q4h prn, miralax BID, senokot 2 tablets qhs, terazosin 10mg qhs, thiamine 100mg daily, tizanidine 2mg q6h prn, tobramycin eye drops, trazadone 150mg qhs, venlafaxine 150mg daily. Regular diet, thin liquids. F/u SNF PT/OT/ST/social services/dietician and nursing 5x week. F/u with neurosurgeon who performed the surgery. Discharge Diagnoses: 1. Traumatic C4 incomplete quad s/p C3-5 decompression and fusion 2. Moderate TBI with LOC and PTA 3. Central cord syndrome 4. Right orbit fracture 5. Hypotension from quadriplegia 6. Acute respiratory failure s/p trach 7. Dysphagia 8. Cognitive impairment 9. Spastic quadriplegia LE>UE 10. Depression 11. Cognitive impairment from TBI 12. Neurogenic bladder 13. Neurogenic bowel 14. Anemia 15. Protein calorie malnutrition 16. Gait abnormality 17. Urinary tract infection 18. Orthostatic hypotension 19. Conjunctivitis 20. Depression 21. Iatrogenic supine hypertension with orthostatic hypotension Discharge to SNF. Condition stable.	
	Lately CCRH	**9/21/20-ST Discharge Summary** MoCA= 22/30 via converted score d/t motoric deficits. Continues to present with mild cognitive deficits including mild difficulty with recall and complex problem solving. Discharge from skilled speech services per pt request as pt reports "I don't' need it" despite education.	953-954
	Lately CCRH	**9/22/20-PT Discharge Summary** Pt currently remains limited in all transfers requiring Hoyer lift d/t decrease core strength and muscle spasms. Pt has tried stand pivot and slide board transfers with decreased safety noted. Able to propel wheelchair with use of goal post joystick with CS with good safety. Bed mobility total assist x2. Limited by significant pain in UEs and LEs with muscle spasms. Barriers: pain, strength limitation, motor control deficits, spasticity, decreased patient compliance, balance deficits, diminished endurance, lack of family support and tone deficits.	743-746

	Lately CCRH	**9/22/20-OT Discharge Summary** Current functional status: Transfers with mechanical lift x2 people, total assist for toileting, UB and LB dressing. Feeding with mod assist with use of wrist drop universal cuff, and max assist bathing with use of wash mitt. D/c to SNF with ongoing therapy services. Barriers to goal achievement: balance deficits, ROM limitations, strength limitations, diminished endurance, tone deficits, pain, impaired skin integrity, spasticity and cognitive deficits. **9/22/20 PT weekly note** Able to propel wheelchair with use of goal post joystick with CS with good safety.	516-518
7/18/20	Lately CCF 001-74	**Cleveland Clinic. Emergency Department** **ED Provider Note** CC: Chest pain, shortness of breath HPI: 64 y/o male hx quadriplegia here with chest pain that started at 9AM this morning. SOB. States the pain has lessened but still present. Got aspirin ant 1 nitro in the squad. Chest CT: No PE. Mild atelectasis. CXR: Mild, somewhat linear opacity in right lung base, appears improved from Xray 7/14/20. Could again reflect atelectasis although resolving infiltrate is also possible. MDD/disposition/plan: VSS. Labs. CXR. EKG NSR. Low concern for acute ACS however given patient's onset of sx, comorbidities would like to observe for trending troponins. Patient refuses this. He wishes to go home. Patient left AMA. Clinical impression: 1. Chest pain 2. SOB Pt transported back to Avon rehab via Midwest ambulance in stable condition but AMA.	25-30
9/22/20-10/27/20	Twilight	**Twilight Gardens Nursing & Rehabilitation** Admitted 9/22/20. Married but not living with her. Has 9 children and was a tow motor driver. Refusing breathing treatment, eye drops. 9/23/20-Handwritten H&P Note 1. Traumatic C4 incomplete quad, s/p C3-5 decompression and fusion 2. TBI-moderate, LOC and PTA 3. Central cord syndrome 4. Hx right orbital fracture 5. Hx hypotension from quad 6. Hx respiratory failure-no trach 7. Hx dysphagia-no PEG 8. Cognitive impairment 9. Spastic quadriplegic 10. Depression 11. Neurogenic bladder 12. Neurogenic bowel 13. Anemia 14. Protein calorie malnutrition 15. Gait abnormality 16. Hx of UTI-E.coli 17. Hx Iotrogenic supine hypertension This is a 64 y /o male hx of MVA rear-ended by semi truck. Intubated on scene and underwent prolonged extraction from his vehicle. Seen today lying in bed. Continues with concern regarding spasms/pain in all extremities. Here for continued rehab. A&O. trace edema BLE. Can move all limbs. Assessment/plan: 1. Spastic quad-PT/OT, Tylenol prn, tizanidine, baclofen, dantrolene increase 2. Dry eyes-artificial tears 3. Dysphagia-ST 4. Constipation-dulcolax colace senna	12-339

		5. DVT prophylaxis-lovenox 6. GERD-pepcid, prn Zofran 7. Seasonal allergies-flomax 8. Neuropathic pain-gabapentin 9. Hypotension-fludrocotisone, midodrine 10. Respiratory failure-duoneb 11. Pain-lidocaine patch-left knee oxycodone prn 12. Insomnia-melatonin, trazadone 13. Neurogenic bladder-terazosin 14. Hypertension-terazosin 15. Malnutrition-multivitamin, thiamine 16. UTIs-tobramycin 17. Depression-trazadone, Effexor 9/25/20-Kim Miller NP/Daniel Berry, MD Seen today for f/u. Awaiting apt for neurology f/u. has some increased cough and congestion over the past weekend and CXR was negative. Started on Mucinex but has been refusing it. Also refusing neb treatments. Nursing reports he's been refusing MV, thiamin, Pepcid, Flonase, Colace, miralax, tobramycin, melatonin, fludrocortisone since admission. States he "doesn't need those". BP 141/99, will decrease his midodrine. He also had been refusing his Effexor and trazadone, monitor this also. Assessment/plan: 1. SCI 2. Dysphagia -ST 3. Deconditioned -PT 4. Depression-trazadone, Effexor 5. Neurogenic bladder-monitor +UTI per urine RN notes resident kicked RN out of the room r/t RN "unable to move his foot to the left" the way he wanted. Is belligerent and downgrading behaviors to aides and staff who enter. Yelled at STNA. SN assessments note not foley, incontinent of stool, depends/briefs Note on 10/9/20: Pt would like to go to another facility in Michigan for acute rehab. He reports they did visit him yesterday. Hand cramps reported 10/20/20. Discharged to Grand Rapids MI. Abrasion to left posterior buttocks and 2 open areas in intergluteal fold.	
9/28/20	587623	**Durable Medical Power of Attorney** Signed by Christine Lately.	5-
10/27/20-11/19/20	Ohioans 000001	**Mary Free Bed Rehabilitation Hospital** (Grand Rapids, MI)	
	Ohioans 000001	**1027/20-H&P Note. Jonathan VandenBerg, DO** Pt was initially transferred to LTACH when it sounds like he received therapy however then he endorses moving to the "Gardens" where they "didn't do anything". Pt endorsed he was not stretched, fed, or tended. Now presents with significant complications of spasticity that will require significant steps to manage. Exam: Limited muscle strength testing 2/2 severe spasticity. Very painful with ROM. ROM limited wrist extension to neutral, elbow flexion contracture vs spasticity. Tone severely	244-251

		increased. ROM limited ER at the hip able to achieve neutral in ankles. Tone adductor tone 3+. Sensation intact to light touch but diminished below C2. Upgoing Babinski. Positive Hoffmans. Plan: C2 ASIA C SCI from MVA. Cath q4-6 hours although patient reports voiding on his own, he is unlikely voiding safely and will require urodynamic studies. Start bowel program. May need to consider baclofen pump if no underlying cause Is found. Meds. Pain management. Wound care. Pt to go to his wife's home at discharge which is a ranch with 2 STE. Wife is clearing out a room that will allow for a hospital bed, commode, and wheelchair. Plan for PT/OT/ST/psychology. Mild TBI-ST to follow. Hypotension 2/2 quad-continue midodrine TID and prn. Respiratory failure-required intubation and trach-now decannulated. Baclofen 40mg TID and dantrolene 100mg BID for spastic quad. Neurogenic bladder-hx of E.coli UTI 9/28, doxycycline x10 days completed. Terazosin. KUB ordered. Dry eyes-drops. Depression-trazadone. Insomnia-trazadone. Regular diet. Oxycodone and Tylenol prn, lidocaine patch to bilateral biceps and left knee. Gabapentin for neuropathic pain. Estimated stay 21 days.	
11/19/20-12/10/20	Defiance	**Defiance Healthcare & Rehabilitation** *Received PT/OT/ST.* *Nursing assessment notes only. No MD notes or therapy notes.*	1-382
12/3/20	Dr. Conley	**Firelands Physician Group** **Virtual Visit. Thomas Conley, DO** CC: Defiance nursing home followup, re-establish per Dr. Conley. Was COVID positive recently. Needs a face to face visit for home health to start following. HPI: I have not seen him since 2018. In early 2019, Dr. Hykes treated his hep C but he did not f/u. I have no records from any location but apparently he had neck surgery in Cleveland and was also then hospitalized in Grand Rapids, MI. Had positive COVID test 3 weeks ago, so he was transferred to his current location as the previous location did not care for COVID patients. Never developed COVID symptoms. Has a foley catheter, they are changing a coccyx dressing, and he needs orders for an air mattress, Hoyer lift, hospital bed, bedside commode, and slide board. VSS per staff. He will be discharged on December 10th and will be with Firelands or Ohioans HHC, depending on family. F/u after initial visit with HHC.	16-17
12/11/20-7/30/22	Ohioans 00001, Ohioans 000399	**Ohioans Home Healthcare. Skilled Nursing notes** Was in SN until d/c from home yesterday. Unstable pressure ulcer sacrum. Home PT/OT/HHA. Wife states she hasn't picked up meds yet. Wife is overwhelmed because she doesn't know how she's going to provide care for her husband. Daughter has 3 children and can only come and assist once in a while. Agrees to social work consult. Foley was placed recently, was voiding on own. Open sacrum wound. Abdomen firm and distended. Unsure of last BM. Called PCP for wound care orders, and suppository. No dressing supplies available. Wife is tearful and overwhelmed. Dr. Conley has agreed to oversee wound care d/t pt not being able to leave the home and go to wound clinic. Plan for HHA 2x week for 7 weeks. OT 2x week for 3 weeks. PT 2x week for 5 weeks. RN/LVN 2x week for 2 weeks, then 1x week for 5 weeks. Note on 12/14/20 notes pt is unsure if he wants to go into SNF or stay at home. Wife is trying her best but doesn't know if she is going to be able to take care of him at home. She states she eventually has to go back to work. Foley removed by RN on 12/15/20. Colored photo of sacrum 12/23/20. Several SN visits of education to wife. Wife is overwhelmed, doesn't want to change sacral pressure ulcer when it comes off, SN educates that they only come out 1-2x week. Had urinary retention, foley replaced. IM antibiotics for UTI.	1-288. 13-

		Note on 1/29/21: Pt states urine output has been WNL since foley removed. Pt questions why he has a UTI with foley out. PT had not wanted to take antibiotic b/c he and his wife believe new blister on his leg was a reaction to it last time. Wife has to go back to work in February. Pt upset that therapy isn't doing anything, they need more help at home, he doesn't know what exercises to do when therapy isn't there helping him. I discuss inpatient therapy at a facility with patient and he loudly states "I'm not going in no damn nursing home". Pt has multiple quarter sized blisters on back side and front of left thigh, some are fluid filled and some are leaking. Wound care provided. Pt states he's having bad spasms in BUE and BLE and notes he's taking his meds. Discussed with patient about me asking PCP for referral for neurologist and he agrees. Colored photo of 5 visualized blisters that have opening to buttocks and left posterior thigh (page 177). Note on 2/1/21: Day in the life being made. Antibiotic given IM. Note on 2/3/21: Wife going back to work. Wife voices concern she can't get him to all these appointments (PCP recommends dermatology for blisters, neurology for muscle spasms). Pt states he's going back to his own place in Bellevue. I asked him if he has anyone there to assist him since he is total care, pt states you don't need to worry about me I have it taken care of. Pt refuses to answer any further questions. --- 2/4/21: Since last visit, he has had foleys taken out twice and now is out permanently. Voiding on his own in urinal. Abx for UTI. Lots of family dynamic issues when it comes to patient care. Wife going back to work, no one to care for him. Michael states he's going to be moving back to his apartment in Bellevue but will not answer when. SN daily for IM antibiotic administration. Home health aide 2x week for 9 weeks 2/9/21-4/9/21. RN/LVNP/RNP/LVN 2x week for 9 weeks 2/9/21-4/9/21 OT 3x week for 4 weeks due to family training and addressing bed mobility and sitting. PT 1w1, 3x week for 4 weeks. 2/19/21: Had followed up last time with request for them to have a visiting doctor come to them. Received a call back from Ohioans and was told the patient's wife declined visit. She states she didn't know how to use virtual visit and wants a phone call until a doctor can come in person. Continues with spasms, sacrum wound. Visit with sister and wife and sister states wife isn't taking care of him properly. Sister is not very strong and struggles to keep him on his side. Tried to educate sister about dressing changes and she doesn't seem to be retaining it when I ask her to repeat information back. Started using condom catheters. RN frequency roughly 1-2x week. 6/14/21: SN nurse note Christine left for work this morning, didn't have "time" to place new condom cath on patient and quickly cleaned pt up before she left. Pt states she didn't give him any meds this morning. Pt had a urine soaked brief wrapped around his penis. Neighbor comes over to sit with him but is unable to care for him physically. Writer informed that social work would be contacting regarding this neglect. 8/30/21: To go to urgent care tomorrow for laceration to penis and noted swelling from condom cath injury. Wound care provided to sacrum ulcer.	
12/13/20	FRMC	UA C&S +UTI. Klebsiella pneumoniae and E. coli.	179-180

12/15/20-7/30/22	Ohioans 000001	**Ohioans Home Healthcare.** **12/15/20-PT Evaluation** Reason for refer: impaired functional mobility ADL function: dependent with grooming, UB and LB dressing, bathing, toileting, transferring, ambulation, feeding/eating, light meal prep, transportation, laundry, housekeeping, shopping. Requires assistance with using telephone. MMT 2/5 to BLE. Max assist with bed mobility, in/out bed, transfer to chair, commode. Quadriplegia. Able to perform very minimal LE movements to assist with functional mobility; fair core strength to assist with scooting. Daily pain 3/10, cramping/spasms in hands and hamstrings. Wife is very apprehensive and new to caretaking. She is also not strong enough to perform needed assist without the Hoyer lift. PT short term goals: demonstrate proper use of DME (Hoyer lift, power chair, hospital bed); demonstrate ability to follow HEP; improve balance during sitting to fair +; and patient and wife will demonstrate proper technique and safety with all transfers for ability to navigate within their home. PT visits noted 12/18/20, 12/23/20, 12/28/20, 12/30/20, 1/5/21, 1/7/21, 1/8/21, 1/11/21, 1/13/21, 1/15/21, 1/8/21, 1/20/21, 1/22/21, 2/25/21, 1/27/21, 1/29/21, 2/1/21, 2/3/21, 2/5/21, 2/8/21. 1/8/21 note: Focus today was on equipment and recommendation. Caregiver reports that patient is not safe with wheelchair. Caregiver would like a manual w/c that pt can use to get to and from appointments with seatbelt. Still awaiting wheeled platform walker. 1/20/21: Max assist for bed mobility and positioning in bed. Numbness in LEs. Hands are stiff. Blisters on BLE some have drained. 2/3/21: severe nausea with using platform walker. Mod assist x2. Having orthostatic hypotension with standing. 2/5/21 reassessment: transferred from supine to sit with moderate/max assist. Caregivers are demonstrating improved abilities to perform transfer with Hoyer lift. MMT 0/5 BLE. 2/8/21: Stood for 4 min, 6 min, 2 min using platform walker with mod assist x2. Sit to stand from EOB is max assist x2. Most therapies consisted of passive ROM and stretching. PT frequency 1-3x week. PT note on 5/7/21 notes pt will hopefully be admitted to short term rehab facility where he will be able to get more intense therapy with hope to transition directly to outpatient therapy after that. 6/25/21 reevaluation: Pt lives by himself in apartment with assistance from aides. Was hospitalized from MVA SCI, d/c'd to an LTAC, transitioned to ECF then his spasticity increased and admitted to Mary Free Bed Rehab Hospital in Grand Rapid MI for rehab then transferred to SKLD Defiance. In Dec. 202, pt returned home with home health care. Received home care rehab from December to May 2021 when his home rehab care was stopped with the hopes that pt would get admitted to a rehab facility for more intensive rehab. Pt has remained at home getting ongoing nursing treatment including treatment of a sacral/coccyx open area. Currently presenting with decrease in mobility and increase extremity spasms/stiffness. Pt has moderate to severe rigidity in UEs more than LEs that limit ability to move extremities. Shoulders limited to 70° elevation, 15-20° supination, 95-100° elbow flexion. -15 to -20° elbow extension. Wrist and fingers are stiff and resistant to	286-329

		movement out of their resting positions. BLE moderately stiff but do show basic functional ROM. Limited active movement in extremities and trunk HE has 3- to 3/5 movement in LEs with LE functional movement. Able to move ankles, knees and hips some independently when sitting or suping but only noted a mass movement pattern of his LEs while standing. Transfers sit/stand with mod assist x2 or max of 1. Mod assist of 2 with sit/supine transfers with person assisting his head and trunk giving mod assist and person assisting his leg min assist. Mod to max assist to perform a bed/wheelchair standing pivot transfer. Lives in 1st floor apt with no steps to enter and exit, apartment does have some narrow doorways and access points. DME: FWW with bilateral platform attachments, hospital bed, gait belt, sliding board, manual w/c. Electric w/c is at his wife's home in Sandusky.	
12/16/20-7/30/22	Ohioans 000001,	**Ohioans Home Healthcare** **Occupational Therapy** **12/16/20-Evaluation** Dependent with all ADL/IADLs (bathing, washing face/hands, shave, dressing UB and LB, ambulating, bathroom, stairs, feeding, cooking meals, cleaning, shopping, driving, writing name, opening door, using telephone. Minimal AROM in UEs. He can shrug shoulders, can flex both elbows though not quite enough to bring spoon to mouth. Absent active function in wrists and fingers. Plan for OT 2x week for 4 weeks. Goals for family member will demo ability to perform PROM to BUE in 4 weeks; pt will feed self up to ½ of meal; UE pain will be managed through stretching of extremities to decrease pain. Pt in bed. He says he gets up daily, either his son or wife transfer him. Wife says someone is coming out to train her in hoyer transfer tomorrow. OT performed PROM to UE. HE is extremely tight and has limited ROM. Left shoulder app 60° flexion, 40° abduction, 45° horizontal abduction. Left elbow lacks 50° tension. Left wrist with full flexion, 10° extension. MPs flex to 90and PIPs to approximately 30°. RUE is tighter with right shoulder flex to app 30°, abduction to 20°, horizontal abduction to 20. Right elbow lacks 45° extension. Right wrist with full flex and extension only to neutral. Right MPs to app 80°, PIPs to app 20. Pt felt pain decreased from 10/10 to 8/10 following PROM. Pt and wife are struggling a bit with managing at home. Hopes he will feel better when his UTI clears. OT notes on 12/18/20, 12/21/20, 12/23/20, 12/28/20, 12/30/20, 1/4/21, 1/6/21, 1/11/21, 1/13/21, 1/19/21, 1/22/21, 1/25/21, 1/27/21, 1/28/21, 2/1/21, 2/3/21, 2/4/21, 2/8/21. 12/28/20: wearing bilateral wrist splints for 1 hour at a time. He has contractures with limited ROM in all joints. OT brought universal cuff but he was unwilling at this time to try and eat. 1/6/21 reassessment: Pain 8-9/10 in both wrists and fingers. He's upset his right wrist draws into flexion and left wrist into hypopronation. He feels that once his joints are stretched, they will return to normal range. OT educated family needs to help with PROM. Wife says she does it "a little bit" when she can but is overwhelmed with all of his care needs. Daughter comes in to help on occasion. Declines to wear the finger extension splints b/c they cause pain one they are removed. 1/18/21: education about the dynamic gloves and their purpose. 1/19/21: Pt and wife frustrated with his status. Reports he's tighter than he was in the SNF (was getting therapy 5x week). Education provided that OT can educate family on days OT is not present. 2/4/21 reassessment: Wife says pt will be moving to Bellevue later this weekend. Hopefully when he moves there, caregivers can be trained. Wife states she does all the cooking, cleaning, etc as well as cares for him and doesn't have much time to spend on ROM. Pt	329-369

		showing improvement this past month in that he is able to sit EOG, can come from sit to stand with min assist x2. Not yet able to transfer. Numerous ongoing OT visits noted. 2/15/21: Wife says she must go to work today, pt's 72 y/o sister was supposed to come from Atlanta did not arrive. Wife works 12 hours and does not yet know who will stay with patient. 3/1/21: Pt now in his own apartment in Bellevue, wife continues to live in house in Sandusky. Pt states they set this arrangement up a couple years ago so neither would have to drive far for work. Sister staying with him. Asked if sister was providing PROM, sister states she did a little over the weekend but hasn't had time to do more b/c there is so much to do taking care of patient and apartment. 3/3/21: Increased spasms throughout body. UE increased tone/decreased PROM. Only able to achieve 45 degrees abduction and 30 degrees flexion at bilateral shoulders. 3/24/21: Pt's sister says she's returning home to Georgia next week. Does not know what arrangements are made to provide him 24 hour care. 4/9/21: Goal is to get him to be able to transfer to wheelchair with +1 assist so he can eventually go to outpatient therapy. In the last month, he's shown improvement in ability to come from supine to EOB, requiring +2 min assist. Mod asst of 2 to stand. Has begun ambulating with wheeled platform walker with min assist x2 approx 15 feet.	
12/17/20-4/28/21	Ohioans 00001-Ohioans 000695	**Ohioans Home Healthcare** **Aide/Homemaker Care Plan** Pt is total support with complete bed bath, grooming, mouth care, shave, cleaning nails, peri bowel, bladder, bed mobility. Bed bound. Aide notes noted from 12/17/20-2/5/21 for a total of 11 visits. Aide ordered for 1-2x per week. Numerous aide notes. Discharge summary on 4/28/21 noting D/c from HHA due to no longer approved by insurance.	370-391
12/27/20	FRMC	**Firelands Regional Medical Center. Emergency Department** **ED Provider Note.** 65 y/o with left sided flank pain. States he's had this for 3 days when suddenly worsened this morning so he called squad. Recently seen by Dr. Conley about left sided flank pain and was told he had UTI And was started on abx. Doesn't have hx of kidney stones in past and pain is steadily worsened. Plan: Suspect kidney stone vs pyelonephritis given hx of UTIs. Signed out to partner. CT abdomen/pelvis ordered. WBC 5.2 Impression: 1. Kidney stone 2. Acute UTI 3. Acute urinary retention ED Attestation note: CT returned with stones in bladder, significant constipation and bladder distention. Foley was placed. Lab studies without significant abnormalities. Pt was given enema here in ED and had several BMs. On reevaluation feeling much better. Foley	105-119

		draining clear yellow urine. Continue cipro which he is taking for his UTI. Foley will stay in place. Script for miralax. Discharged home. EMS to transport home. Bladder scan 557ml. CT abdomen/pelvis impression: 2 tiny stones within the bladder. No obstructive uropathy. Moderate urinary bladder distention. Nonobstructing bilateral nephrolithiasis. Severe constipation. C&S + klebsiella pneumoniae. F/u with Executive Urology in 3-5 days, Thomas Conley, DO in 3-5 days.	
1/13/21	FRMC	UA C&S +UTI. Acinetobacter baum/haemol and Klebsiella pneumonia	
1/14/21	Dr. Conley	**Firelands Physician Group** **Office Visit. Thomas Conley, DO** CC: requested appt to go over meds HPI: He continues with HHC and PT/OT. I still have essentially no information from St. Vincent's about his neck surgery. Him and his wife state they were told very little about what to expect for his recovery. He is able to move his arms and legs but cannot stand up on hi sown. He needs script for a wheeled platform walker to Firelands DME so he can continue his rehab. His pain is not adequately controlled with current dosing. Doesn't have any scheduled f/u with his surgeon. He was able to get in with urology on Monday to manage his catheter. He has had 2 catheter associated UTIs now. He was on dronabinol after surgery to help with appetite. I have already decreased his dose. Assessment: 1. Cervical SCI 2. Cervical spine arthritis 3. Decreased appetite 4. Hx of cervical spine surgery 5. Decreased mobility Plan: Refills sent to increase gabapentin for better pain control, 400mg TID. Wheeled platform walker. F/u 4 months.	14-15
1/21/21	FRMC	UA C&S +UTI. Klebsiella pneumoniae.	90-91
2/11/21	FRMC	UA +UTI.	81
4/26/21	Lately ANA	**Advanced Neurologic Associates, Inc.** **Office Visit. Christopher Hassett, DO** Reason for appt: Cervical spine injury HPI: Mr. Lately is a 65 y/o male referred by Dr. Conley for a cervical SCI. MVA. Pt is a poor historian and his wife states his entire care was smashed under a semi truck. Wife states he's been having horrible spasms in his legs and stiffness in his arms and legs since injury. States he has no use of his hands or legs now. Can walk with a walker but with assistance. Has a home health nurse that comes in to work with him. Not sure who his neurosurgeon was but states he is no longer seeing them. Wife states they were never really given any prognosis. States they were just given papers on dealing with paralysis. Exam: CN intact. A&O. BUE and BLE strength 4-/5 throughout with spasticity in arm and finger flexors. 4+ reflexes to BUE and BLE. Hoffman's sign positive. Sensation intact. Wheelchair. Assessments: 1. Cervical myelopathy 2. Spasticity 3. MVA Has been active in PT/OT and continues to explore further options.	33-35

		Plan: F/u in neurosurgery and continue PT/OT pursuit. Significant spasticity-I do feel he would be an ideal candidate for Botox therapy for this, refer to Dr. Danner for Botox consult. F/u in 4 weeks.	
5/11/21	Lately ANA	**Advanced Neurologic Associates, Inc.** **Office Visit. Nicole Danner, DO** Reason for appt: Spasticity HPI: Here for Botox consult at request of CH for spasticity. MVA 6/27/20. Since that time left arm has gotten stiffer and more flexed. Has spasms in both arms and legs and stiffness. Therapy now over. Does do some home exercises but not as much as he should. In a wheelchair but can make some steps with walker. Needs assist with transfers. She states the therapy did help a little bit but not much, not getting enough of it. Baclofen was helping but now he is getting spasms rapidly again. Has neurogenic bladder and is on oxybutynin. Also on Neurontin. Exam: 3-/5 strength to BLE and LLE throughout, RUE strength 3/5 throughout. Tone increased in all 4 extremities. Assessments: 1. SCI at C1-C4 level 2. Cervical myelopathy 3. Spastic quadriparesis 4. Muscle spasm Plan: Continue baclofen. Submit for Botox injections. Needs to be doing HEP at least 5 days out of the week and be more aggressive with it. They were discussing someone talking about sending him to inpatient rehab. I have no idea what they are talking about will have to defer that to Dr. Hassett who is his primary neurologist. F/u 6 weeks.	29-31
5/13/21	Ohioans 000685	**ProHealth Physician Group** **Telemedicine Visit. Brittney Goldi APRN** New patient visit. New consult for primary care. Ohioans HC nurse Mariah is present during video. Incomplete quad from MVA. He reports his weakness has improved over time with therapy. He is able to walk with a walker and assistance. He had a neurogenic bladder and requires a condom cath. Major issue from the accident is muscle spasms. Worse over time. He's on high dose gabapentin, muscle relaxers and trazadone. Still uncontrolled. Pending neurology referral. He has a chronic pressure ulcer on his coccyx that Ohioans is currently assisting with dressing changes. Pt and nurse feel the wound has been getting worse and are requesting wound care evaluation. Has severe itching after taking medications, not sure which one. Will add Pepcid and antihistamine. Reports adequate mood and sleep. Plan: continue meds. Wound care referral. Labs: CBC, CMP, lipids, TSH, T1, A1c, vitamin D, vitamin B12, mg, BNP. F/u 1-2 months.	132-133
7/5/21	Ohioans 000903	**ProHealth Physician Group** **Office visit. Angela Gilmor, APRN** Seen for f/u of wife's concern of blisters on pt's stomach and abdominal swelling. Able to walk with walker and assistance. Admits to not been taking near as many steps as he used to be able to do. Neurogenic bladder-condom cath. Major issue is muscle spasms. Chronic ulcer. Pt is going to Sandusky for a wound care consult d/t healing not progressing. Blisters on abd. Have not changed since Telemedicine visit in June. HH nurse sees pt twice/week. PT twice/week. Pt would like OT. Plan: See wound care tomorrow. Pt needs OT in home. Consider abdominal CT for distension. Right elbow xray for pain. Motrin prn.	135-141
7/6/21	FRMC	**Firelands Regional Medical Center Wound Center** Sacral pressure ulcer. Wife reports he's HOH and would be easier to speak mostly to her. Currently. Having home health nursing assist with dressing changes as well as Christine. Stage 3 pressure ulcer. 2 colored photos of sacral ulcer. Wound care instructions.	48-56

		Saw wound care 8/11/21, 9/8/21,	
7/16/21	Ohioans 000903	+UTI per urine	201
7/23/21	Bellevue 0001-0423	**CT abdomen/pelvis** Hx: Swollen abdomen, abdominal distension Impression: Mild bibasilar atelectasis with trace pleural effusions. No acute intraperitoneal abnormality. **X-ray right elbow** Hx: Pain of right elbow joint Impression: Posttraumatic and degenerative changes	415-417
8/24/21	Lately ANA	**Advanced Neurologic Associates, Inc.** **Office Visit. Chloe Callison, PA-C/Christopher Hassett, DO** Reason for appt: Spasticity, cervical myelopathy HPI: Did have a Botox consult with Dr. Danner but still waiting approval from insurance. PT/OT helping again. Still having horrible spasms in legs and stiffness in arms. Exam: 4-/5 to BUE and BLE with spasticity noted in the arm and finger flexors bilaterally. 4+ reflexes at bilateral biceps, brachioradialis, knee, and ankle. Hoffman's sign positive. Light touch and vibration sensation intact in extremities. Continue baclofen, increase to 30mg TID. F/u with Dr. Danner once approved for Botox.	26-28
10/4/21-1/27/23	Med1care 00023, Med1care 0034	**Med1Care** Home nurse assessment 10/4/21, 11/26/21, 1/27/22, 3/28/22, 5/31/22. Home health aide documentation notes home health aide came out 2-5 days per week for 2 hours per day (8am-10am) until 11/2/21 then provided 3 hours of care per day again between 2-5 days per week. 1/26/22 started with roughly 4 hours of care per day, 3-5 days per week (2 hours or personal time, 2 hours of homemaking). Notes condom cath, underpads. Home health plan of care & certification SN 1 visit every 60 days for skilled assessment, med review, and supervision of HHA. Home health aide orders 10/4/21-12/2/21: 1-5 days/week, 1-2 hours per day 12/3/21-1/31/22: SN 1 visit every 60 days. HHA 1-5 days per week, 1-3 hours per day. 2/1/22-4/1/22: SN 1 visit every 60 days. HHA1-5 days per week, 1-3 hours per day. 4/2/22-5/31/22: SN 1 q60 days. HHA 1-5 days per week, 1-3 hours per day. 6/30/22-7/30/22: SN 1 visit every 60 days. HHA 1-5 days per week, 1-3 hours per day. 7/31/22-9/28/22: SN 1 visit every 60 days. HHA 1-5 days per week, 1-3 hours per day. 9/29/22-11/27/22: SN 1 visit every 60 days. HHA 2 hours a day for 1-5 days. 11/28/22-1/26/23: SN 1 visit every 60 days. HHA 2 hours a day for 1-5 days. 1/27/23-3/27/23: SN 1 visit every 60 days. HHA 2 hours a day for 1-5 days.	1-110. 1-75
10/11/21	Bellevue 0001-0423	**The Bellevue Hospital Rehabilitation Services** **10/11/21-Initial PT Evaluation** Assessment/diagnosis: Recommend OT eval (OT more a priority than PT) transportation limits visits. Rehab potential fair minus without botox. High tone UE more than LE. Botox pending.	400-404
10/19/21-02/08/22	Bellevue 0001-0423	**The Bellevue Hospital Rehabilitation Services** **10/19/21-Initial OT Evaluation** CC: inability to move BUEs enough to perform functional tasks for himself. Objective: Upper extremity quick DASH 86.36/100. Right handed. ROM noted. MMT bilateral shoulder flexion 2/5, bilateral elbow flexion 3/5, bilateral elbow extension 2+/5. Power grip right 2.5 psi, left 7.2 psi. Assessment/dx: Pt presents with an extreme amount of function loss throughout d/t incomplete SCI from C1-4 fracture as result of MVA. He has extreme tightness to BUE at elbow, forearm, and wrist that limits his positioning and ability to hold his walker and use	361-392

		adaptive equipment to improve his ADls. His inability to hold a walker limits his ability to work with PT on improving transfers and gait. He is awaiting Botox approval to reduce his tone enough to improve his ROM. Problem is transportation as he needs to be pivot transferred at home in order to get into w/c and wife works. OT is a higher priority then PT at this point. Pt would be most functional with power wheelchair. Plan for OT 3x week for 10 weeks. Treatment to include ther. Exercises, ther. Activities, neuromuscular reeducation, HEP, self care, E-stim. OT note on 10/19/21, 10/27/21, 11/3/21, 11/9/21, 11/12/21, 11/15/21, 11/19/21, 12/1/21, 12/6/21, 10/17/21: Pt presents with caregiver. Pt continues to live alone with outside assist for 2 hours a day with Passport and family from time to time. Pt very dependent with nearly every aspect of ADLs. Pt arrives today with wheeled platform walker, and bilateral wrist cock-up splints. No adaptive feeding splint as patient can't locate his. Exercises complicated by extreme tone in BUEs and frequent spasms during stretch. Assessment: Pt continues with very limited function. 11/9/21: He would benefit from more frequent visits, and to have his home head aids trained to perform Rom and stretching for him. He would be better with home health therapy as he cannot get to outpatient therapy more than 2x week and his aide is unable to come with him for training. Pt to have insurance payor change at end of this year. Would encourage home health PT and OT at that time. 12/1/21 note: Pt more stiff today than normal. Pt upset that he hasn't been worked with in 10 days. Pt with no one working with him at home, and caregiver unable to get him to therapy for 10 days. 12/6/21: Assessment: Pt has shown slow progress with movement and grip strength. Functional abilities remain very limited with bilateral hands. Pt anticipates to return to home health PT and OT starting tomorrow. If this happens, will be discharged from outpatient. 2/8/22: Discharge note: Pt started home health therapy and was discharged from outpatient OT	
10/29/21	Lately ANA	**Advanced Neurologic Associates, Inc.** **Office Visit. Nicole Danner, DO** This time he would benefit from Botox injections. We will do his Botox today in arms and see how he tolerates it and may need to add his trapezius in lower extremity. Continue baclofen. Procedure: Botox total of 240 units injected to BUE. F/u 6 weeks.	24-25
12/9/21	Ohioans 001343	**ProHealth Phsycian Group** **Home Visit. Jeffrey Ward NP** 65 y/o male seen for f/u of abdominal pain, med refill, BP check and primary care needs. Hx of C1-C4 incomplete quad from MVA. Able to walk with walker and assist. Needs assist to sit up and get out of bed. Neurogenic bladder requiring condom cath. Previous issues with penile sores resolved. LLQ starting month ago, intermittent. Has daily stools. Adequate appetite Exam: Very limited active ROM in hands, wrists, elbows, shoulders, can wiggie fingers, unable to squeeze hands or make a fist, limite active ROM with pronation andsupination of hands, limited AROM to straighten arm, good AROM, can raise legs of bed, strong active and passive ROM PF and DF. A&O cooperative. Will order in home PT and HHA per wife, she can no longer assist him adequately. GI consult for continued abdominal pain. Believe it's benign as it's long lasting. Unlikely d/t neurogenic bowel. Had negative	2-11

		CT 7/23/21. Wife had called 10 days ago asking for abx. She went to vegas and never started until yesterday. No wounds at this time.	
1/28/22	Lately ANA	**Advanced Neurologic Associates, Inc.** **Office Visit. Nicole Danner, DO** Reason for appt: Botox HPI: MVA. Resulted in spastic quadriparesis worse in LUE and less so in BLE. Also has RUE spasticity. He will have repeat Botox today at a higher dose to control his spasticity better. May consider adding his in traps and or BLE. Procedure: Botox total of 300 units to BUE. F/u in 3 months.	22-23
2/7/22	Ohioans 001444	**Prohealth physician group** **Home visit. Jeffrey Ward, NP** Dx: 1. Respiratory failure 2. Other protein calorie malnutrition 3. Lack of coordination 4. Pressure ulcer of sacral region 5. C1 incomplete quad 6. TBI 7. Depression 8. Hypotension 9. Neurogenic bowel 10. Insomnia 11. Neuromuscular dysfunction of bladder 12. MVA 13. Hyperlipidemia 14. Blister on skin 15. Spasticity Visit for f/u. no new orders. Exam unchanged.	2-11
4/5/22	Bellevue 0001-0423	UA C&S drawn, +UTI. +Klebsiella pneumoniae	357-358
4/20/22	FRMC	**Firelands Regional Medical Center. Wound Care Program** Here for initial visit for eval and treat of sacral pressure ulcer. His wife, Christine is with him today as well as caregiver Katie. Ulcer has been present since March 2022 but has a tendency to open and close throughout the years. B/c it is such a taxing effort for them to leave the home we will reappoint in 4-6 weeks. Does have home health nursing assisting with dressing changes. Unable to move or reposition himself so LAL or LAL overlay would be beneficial. Exam: Stage 3 pressure ulcer to sacrum. Length 0.8cm x 0.4 cm x 0.1cm deep. Wound d/c instructions. Sacrum dressing: can use saline or foam cleanser .Can use Triad cream to irritated areas. Collagen silver, skin prep, bordered foam to open wound. Change 3x week. Wrote for LAL mattress. Has roho but not using (causes discomfort). *Poor quality photo of open sacral wound* Note on 5/11/22 notes sacrum healed. Use barrier cream or ointment, no bandage.	24-32
5/3/22	Bellevue 0001-0423	UA C&S drawn, +UTI. + proteus mirabilis and Klebsiella pneumoniae.	348-350
7/18/22-11/8/22	Bellevue 0001-0423	**The Bellevue Hospital Rehabilitation Services** **Occupational Therapy** **7/18/22-Initial OT Evaluation** Dx: Quadriplegia, C1-4 incomplete, dorsalgia	98-205

		HPI: Pt is a 65 y/o male who is referred to the Bellevue Hospital rehab with the complaint of inability to use arms and legs d/t incomplete C1-C4 quadriplegia resulting from MVA on 6/27/20. He was in Toledo Hospital, then Avon Rehab, then 3 different NH's before going to wife's home. He is now living in his own home alone with passport coming daily for 2 hours. He also has family that comes in daily to assist as well. Pt is awaiting botox injections in arms. Pt now with passport aide helping 2-4 hours a week up to 5 times a week. However, aids are in short supply and he is only scheduled for 2 hours this week. Pt has a good friend and wife who pivot transfers him to the left side with max assist times one. Pt has gained weight in past 7 months from 150lbs to 175lbs. Wife works from 1:30am to 1:30 pm. Pt will need passport transportation to come to PT or OT. Home health PT saw patient after he was discharged from outpatient OT. HH OT saw him for 3 visits and did not return. PT came 1x per week for about 3 months. Pt is unable to care for himself on his own and more in home help would be recommended. Aides are in short supply. Pt has had multiple rehab stays in Avon, Grand Rapids and Toledo. Pt spends most of the day in the hospital bed. Pt has a home aide that comes M-F from 9-1. She helps with ADLs and transfers into wheelchair. Also provides some meal prep as well. She will transfer him back to bed at 1pm. His wife then stops by after work for a while. He uses a condom catheter and uses a brief with bowels. CC: lack of movement and stiffness in bilateral hands, wrists, and elbows that limit his ability to grasp walker and perform basic ADLs like feeding and grooming. Denies pain. Pt has hospital bed in main room. Needs friend or wife to pivot him to wheelchair. May be getting too much for wife. May need long term placement asap. Assessment/diagnosis: This patient presents with significant hand, wrist, and elbow tightness/contractures that limit his abilities with daily activities including holding on to his walker to ambulate. Pt goals: improvement movement and tightness of bilateral hands, wrists and elbows. Upper Extremity Quick DASH 75/100. Right-handed. Right AROM shoulder flexion 40 degrees, left shoulder flexion 60 degrees. Right elbow extension -68, right elbow flexion 120 degrees, right elbow supination -60, left elbow extension -60, left flexion 120 degrees, left elbow supination -60, Right wrist ext - 40, right wrist flexion 70 degrees, left wrist ext - 30, left wrist flexion 54 degrees, includes hand ROM, right grip strength 2.5 psi, left grip strength 12.2psi. Plan for OT two times a week for five weeks. Treatment to include therapeutic exercises, therapeutic activity, manual therapy. OT notes on 7/26/22, 7/29/22, 8/1/22, 8/8/22, 8/11/22, 8/15/22, 8/18/22, 8/22/22, 8/31/22, 9/2/22, 9/7/22, 9/9/22, 9/13/22, 9/15/22, 9/20/22, 9/22/22, 9/27/22, 9/29/22, 10/4/22, 10/6/22, 10/13/22, 10/25/22, 10/27/22, 11/1/22, 11/3/22, 11/8/22. 9/20/22 note: Continues as before. His tone and spasticity remain his biggest limitations with ROM and associated functional use. States he's going back for additional Botox consult on September 29th I would recommend continued OT after this to see if it improves his status. 9/22/22 note: Report he was able to lift his own canned rink up using both hands and drink from it using a straw for the first time since his accident. Would look to extend OT another 10 visits after additional botox. 9/27/22 note: Continues to show progression with nearly every ROM joint measurement this plan of care. Also reporting several new functional abilities that he has been able to do that he could not previously do. He reported today that he was able to reach his ears and remove his Bluetooth phone attachment on his own. The patient has been improving with his ability to position his upper extremities on his platform Walker. Right power grip 5.1 (was 4.3) psi, left power grip 16.1 (was 14.0).	

		10/4/22 note: difficult treatment today. Not able to perform the cone stack effectively with either hand. His tone and joint stiffness was increased throughout BUEs. He's scheduled to have Botox injections on Thursday. 10/13/22 note: Increased bilateral wrist extension and supination today. Possible improvements from last week's Botox, and/or use of massage guns prior to stretching those areas. 10/25/22 note: increased spasms with less to trigger them today. Stiffness in joints and soft tissue seems to have returned to his pre-botox level, but this is hard to determine with his spasms. 10/27/22 note: Continues as before. Botox seems to have worn off completely. His stiffness appears to be back to previous levels. 11/8/22 note: Pt shows some slight improvement in AROM in a few areas, slight decline in a few areas. His grip strength has declined on both hands (right 3.4 psi, left 10.8 psi). He is overall improved from his evaluation, but has reached a point of no further improvement over last 4 weeks. Additional OT visits are not recommended at this time. He will be discharged from OT.	
7/18/22-1/12/23	Bellevue 0001-0423	**The Bellevue Hospital Rehabilitation Services** **Physical Therapy** **7/18/22-Initial PT Evaluation** HPI: Botox injections in arms did not do anything per patient. He cannot grip to hold onto standing Walker and he has maxed rehab potential with standing (max assist) and standing and Walker mod assist x2. Patient rehab potential after one year out is fair minus at best. Best use of resources and transportation would be to consider OT taking lead with upper extremities especially after Botox injections. Concern for grip developing to the point he could functionally use hands for sliding board, Walker, parallel bars. Patient has a motorized wheelchair that is controlled by hands (unable) and head (uncontrolled). Wife states this is unsafe in his small apartment as it is too fast and he cannot control it. Reports unhappiness with home health: OT did not come and PT was only there 1x week and he states he got worse: "how could I get better with only 1x week?" Note per MD 6/24/22 states he plateaued with HH per their report. Pt reports LE spasms. Objective: Balance: Berg 0/56. Lower Extremity Functional Scale 0/80. Mod assist for supine to sit. Max x2 sit to stand. Max assist for toilet transfers. ROM noted. Adductor/extensor tone increase noted with passive hip ROM. Assessment/diagnosis: two years post MVA with incomplete C1-4 spinal cord injury. Gross UE/LE paresis. OT to focus on UEs. PT on LEs for spasm/tightness and focus on gait improvements/transfer ability. Poor hand function persists to allow patient to grip, etcetera with transfers, sliding board and platform walker. Patient getting more deconditioned without gait transfer practice at home other than bare minimum. He does try to keep going by doing sit-ups and other exercises in bed. Rehab potential: fair (no improved transfer skill with last 6 weeks of PT). Plan for PT 2x week for 5 weeks. PT notes on 7/26/22, 7/29/22, 8/1/22, 8/8/22, 8/11/22, 8/15/22, 8/18/22, 8/22/22, 8/31/22, 8/31/22, 9/7/22, 9/9/22, 9/13/22, 9/15/22, 9/20/22, 9/22/22, 9/27/22, 9/29/22, 10/4/22, 10/6/22, 10/13/22, 10/20/22, 10/25/22, 10/27/22, 11/1/22, 11/3/22, 11/8/22, 11/10/22, 11/17/22, 12/1/22, 12/29/22, 1/6/23, 1/10/23, 1/12/23, 8/31/22: Recertification note: Still with intermittent spasms BLE. Pain in hands is chief complaint but otherwise okay. Just finished with OT. Reports leg spasms 3-4x day, randomly but especially in AM and with getting turned in bed. It's especially LEs but comes up into thighs and makes him tense all over.	

		Objective: Berg 2/56. LE Functional Scale 1/80. Mod assist supine to sit. Mod assist x2 sit to stand, leans posterior vs forward to push up unless heavily cued. Needs max assist for LE positioning on both RLE and LLE to flex knees before standing. Quads very shaky with leaning forward first vs. posterior lean and push backwards. Max assist for toilet transfers. Legs tend to slide forward with pivot transfers unless blocked manually as patient tends to lean back. Needs mod assist of 2 to stand, max. Max assist to place UEs on platforms. Once up, CG to mod assist for support and cues for standing balance. Gait with min assist of 2 with cues to stand more upright less bradykinesia-able to ambulate right after placing hands on platform. First 1-2 steps shorter to get stabilized. Today 40, 42, and 25 feet-less drag of feet but fatigues and tends to get stuck at end of ambulation. Did have some urine incontinence that made it past his depends. Attempted standing balance statically with UE support with mod assist of 2 for safety-pt hyperextended bilateral knees and leaned slightly on wheelchair behind him for balance. Unable to "unlock knees" or would lose balance. Assessment/dx: Able to pick up LEs without dragging better, begin to initiate gait more readily and increase distance significantly with gait since start of care. Still requires max assist for hand placement on platform and mod assist of 2 to help get initial balance but then usually CGA to min assist during ambulation until LEs fatigue and start to lock up a little. Sitting balance a little better-noted on BERG. Pt has shown some improvements with gait efficiency/technique. Will ask for 5 more weeks 2x/week. 9/15/22 note: grade I pressure area left heel causing soreness. 10/4/22 note: Pt reports increased stiffness today and verbalizes concern over asymmetrical posture. Ambulates with increased left toe drag on second trial sporadically. Increased tone in opposite side with AROM today. 10/6/22: Recertification note: Continue PT after recent injection to see if improvements. Determine if patient will have the change to continue improving at home or if he will just backslide from not getting proper help. Pt problems: add/extensor tone LEs with gross LE paresis; unable to transfer from supine to sit or roll independently on bed; need for more care for hygiene, improved activity at home; needs max assist for hand placement on platforms of walker and mod assist of trunk to support with gait up to 8 feet-bradykinetic and difficulty advancing LEs. Plan for PT 2x week for 5 weeks. Therapy to include ther. Exercise, ther. Activity, gait training, neuromuscular reeducation, manual therapy, HEP. 10/13/22 note: Suspect laxity/decreased tone in knees/thighs d/t botox which negatively affecting his ability to stand and ambulate today. Decreased quad use with push off and decreased ability to advance LLE. Sitting balance not as good as well and could not attempt standing balance. 10/25/22 note: significantly limited by gait distance this date with increased BLE spasms, increased need for assist and inability to advance LLE. Even after 40 minutes of stretching, MFR, rhythmic rotation/stabilization exercises and ROM to BLE, no overall change in spasms post treatment today. 11/3/22 note: Improved gait endurance and stability today. Still difficulty with transfers d/t posterior trunk extension domination over quads. Has grade I pressure ulcers on heels-discussed ways to reduce this. 12/1/22 recertification note: New gain today-able to roll supine to right side with supervision. Mod assist to left as left shoulder more abducted on that side. Able to bend right knee fully to help form right foot flat/knee bent position as well as on right and unable for left. Berg 4/56. LE Functional Scale 8/80. Heels do not touch with ambulation d/t PF contractures L>R. Assessment/dx: Mild functional improvements, increased distance to 68 feet x2 before fatigue. Improved knee flexion and not getting stuck on floor with LLE but still drags tip of	

		foot on floor while stepping through. Increased difficulty assist with turning. Quads less shaky with standing again-was initially worse after Botox shot. Summary: Pt reports he would like to walk better as a main goal and had not been able to progress with this as much as he would like with starting/stopping therapies in past d/t insurance limitations. I recommend not to fully stop as his gains are noticeable with gait and with rolling in bed. Recommend 1 more treatment this month to help maintain, then 2x week again starting beginning of the year for 12 weeks. 12/29/22 note: Decline with being off for 3 weeks d/t cancel by patient and less ability to turn self in bed and perform active exercise. 1/6/23: Got Botox yesterday in left knee on down to calf and left shoulder. Wearing Light Red boots today. Denies pain, reports leg spasms at least 3-4x/day. Aide Monday-Friday everyday per pt, but sometimes they don't show. Stand and pivot-hard to do for ex wife but she tries everyday after work (12 hour shifts) then goes home to help him transfer. Reports able to sit self up in bed to help with donning shirt with aide if he pulls straight up. Current functional limitations: needs assist to pivot, stand and walk and for placement of UEs on platform walker. Needs assist with depends-not on a regular toilet schedule. Pt's significant other does help transfer to commode on occasion but not all the time-it's hard on her and wearing on her body in which she already has carpel tunnel and right knee issues. Has hospital bed in main room. Needs aide, friend or wife to pivot him to wheelchair. May be getting too much for wife. May need long term placement asap. Precautions: C1-4 incomplete SCI after MVA 6/2020. Poor hand function. Living at home-dependent on aide/ex-wife for wife but has depends. Hx of buttocks wounds in past. Presents reports no open areas but "abrasive areas". Objective: Pt ambulated 102 feet today on first attempt. Best ever done in distance by far at one time. Max assist to move fingers to place on platform rails but minimal assist to move shoulder and elbow into position. Less dragging of LLE after Botox shot yesterday. Ambulated another 62 feet with RW with foot drag and fatigue the last 20 feet. Mod assist of 2 with sit to stand transfers consistently today. Sitting balance is good minus. Dynamic is fair plus. Sit to supine with max assist for trunk and LEs. Bed rolling with min assist to left and CGA to min assist to right. Assessment: Improved gait performance today with light boots on and after Botox shot yesterday.	
7/19/22-8/31/22	Med1care 00014	**Med1Care** Home health aide visit note. Daily Monday-Friday roughly 9am-1pm.	1-83
9/21/22	Lately ANA	**Advanced Neurologic Associates, Inc.** **Office Visit. Alexandra McCarthy, PA-C/Christopher Hassett, DO** Reason for appt: Medical necessity for power chair HPI: Wife states he is still in PT/OT and it is helpful. He admits some improvement with walking. Denies any recent falls. Still having horrible spasms in legs and stiffness in arms and legs since the injury. Assessment: 1. Cervical myelopathy 2. Spasticity 3. MVA Continue power mobility device, PT/OT. F/u with NSU as indicated. Waiting on insurance approval for botox with Dr. Danner. F/u in 4 months.	19-21
9/27/22	Lately ANA	**Advanced Neurologic Associates, Inc.** **Office Visit. Nicole Danner, DO** Reason for appt: Spasticity HPI: Did notice some loosening in his muscles when he was doing the Botox. Does want to continue. He is having more spasms, states that they make him become so tight that	16-18

		he jerks in his arms and legs. Taking baclofen but does not see that helping. She states they forgot to schedule him after the last time. Exam: RUE strength deltoid, biceps, triceps, wrist extensors, wrist flexor, grip strength 3/5, LUE Strength deltoid, biceps, triceps, wrist extensors, wrist flexor, grip strength 3-5, BLE strength iliopsoas, quads, tibialis anterior, and gastrocnemius strength 3-/5. Tone increased in all 4 extremities LUE flexion spasticity at the elbow and extension at the fingers, RUE milder flexion spasticity at the elbow and extension at the fingers and difficulty at the shoulder joint with abduction of the arm bilaterally, BLE less spasticity with extension were spasticity with some clonus with flexion. Light touch sensation intact to light touch in extremities. Assessment: Had 2 sets of Botox which were helpful. Forgot to make an appt so it's been since January. He needs to be set up with repeat Botox injection. He would like to add in his legs. At this time he has more left lower semi-spasticity in RLE. I would only inject LLE first as he may be using some of the spasticity in the RLE to ambulate with. Plan: Set up with new botox injections and add LLE. May need to request 600 units of botox. Continue baclofen. F/u in 1 week.	
10/6/22	Lately ANA	**Advanced Neurologic Associates, Inc.** **Office Visit. Nicole Danner, DO** Reason for appt: Botox HPI: He did have 2 sets of Botox injections which were helpful. He noticed much less spasticity and muscle spasms. They failed to make another appt. Here today to restart injections. We will "occluded" his LLE. I am hesitant to add any Botox to his RLE as I suspect he uses some of that spasticity to stand on that leg. I do not want to make it weak. Procedure; Botox total of 350 units given to RUE and LUE and LLE. F/u 3 months.	13-15
10/7/22	Dr. Conley	**Firelands Physician Group** **Office Visit. Gloria Johns, DO** Reason for appt: Establish Care HPI: Pt is a 66 y/o male who presents to establish new PCP. Pt previously saw Kelly Shanks ProHealth Physicians out of Perrysburg, Ohio. Pt sees Dr. Danner and Dr. Hassett/neurology. Pt last had a colonoscopy about a year ago and was told to repeat this in 5 years. Pt wife states that his PCP was ordering PT/OT through Bellevue Hospital for him, so he will need a new order. Pt reports anterior abdominal pain, pain and a bulge when laying down. Had imaging done previously but was told this was likely muscular pain. MVA 2020. Has been working with PT/OT and states he has been getting function back. States he walked 150 steps yesterday. BP 120/72. HR 82. 98% RA. Ht 70 inches. Exam: Seated in wheelchair. LCTA. Abdomen soft palpable bulge in ventral abdomen just left of midline with TTP, more prominent when sitting up. Quadriplegic, weakness specifically in hands. Assessments: 1. Ventral hernia 2. Dyslipidemia 3. Quadriplegic following SCI 4. Neurogenic bladder Plan: Discussed palpable hernia, recommend evaluation by general surgeon to discuss. Follows with neurology/neurosurgery. Actively in PT/OT. F/u 3 months.	11-12
10/10/22-1/19/23	Med1care	**Med1Care** Home health aide visit notes noted daily Monday-Friday from roughly 9am-1pm. Consisted of hair care each visit, shampoo weekly, skin care and mouth care each visit, nail care weekly. Personal care each visit, bed bath weekly. Light housekeeping, dusting, sweeping, vacuum, take out trash each visit. Check pressure points, toileting/hygiene, med reminder each visit. *No additional comments noted in documentation.*	1-146

11/28/22	FRMC	**CT abdomen/pelvis** Clinical hx: Left sided abdominal pain with lump Impression: 15mm obstructing right UVJ stone. Bilateral nephrolithiasis	12-13
1/5/23	Lately ANA	**Advanced Neurologic Associates, Inc.** **Office Visit, Nicole Danner, DO** Reason for appt: Botox HPI: 67 y/o with SCI 2/2 MVA against an 18 wheeler semi tractor trailer. Had to have emergency surgery and rods put in his neck d/t C1-3 fracture resulting in cervical myelopathy. This has resulted in spastic quadriparesis worse in the LUE and less so in BLE. HE also has RUE spasticity. He did have 2 sets of Botox injections which were helpful but then he failed to return for other appointments. Now restarted his Botox injections. He has unrealistic expectations as I think he believes that the injections would return him to normal. Had a long discussion today that he has trauma and he likely will never return to baseline. We increased the dose of the injections and concentrated on the LUE and LLE. We will then compare that to the right arm that did not receive Botox injections to determine what the difference in the spasticity is so he can make a better decision on whether it truly helped or not. Will see him back in 4-6 weeks when Boto is speaking to determine benefit. He has failed PT, baclofen, Neurontin. Procedure: Botox. Just did left side today. Total of 400 units injected to left biceps, brachioradialis, flexor digitorum sublimis, flexor carpi radialis, flexor carpi ulnaris, flexor profundus, triceps, deltoid, hamstrings lateral, hamstrings medial, lateral gastrocnemius, medial gastrocnemius, soleus. Tolerated well. Assessments: 1. SCI at C1-C4 level 2. Cervical myelopathy 3. Spastic quadriparesis 4. Muscle spasm *Procedure codes: J0585, 64645, 64644, 95874*	10-12
1/13/23	Bellevue 0001-0423	**The Bellevue Hospital** **KUB 1 view** Impression: 1. Bilateral nephrolithiasis containing large stones	72
2/4/23	Bellevue 0001-0423	**The Bellevue Hospital. Emergency Department** **ED Provider Note** CC: Chest pain HPI: Pt has a history of cervical spine injury that caused him to be quadriplegic, some sensation in his upper extremities and upper chest, coming with this generalized chest pain that is most increased to the left side over the last few weeks. He mentioned that he had been dealing with this pain for a long time saying that he feels like his chest wall muscles unrestricted, the pain gets worse when taking deep breaths. Denies any fever, chills, cough, N/V. Denies recent chest trauma. Full problem list: tetraplegia, depression, heartburn, IBS, high cholesterol, UTI, kidney stones, viral hepatitis C, SCI, ureteric sone PSH: colonoscopy, cervical arthrodesis 6/27/20. NKDA Weight 75 kg. Heigh 70 inch. BMI 23.9. Current everyday smoker, 3 cigarettes daily for years. Home meds: ascorbic acid, baclofen 30mg TID, cholecalciferol, Claritin, Cymbalta 30mg daily, famotidine, ferrous sulfate, Flomax, gabapentin 300mg TID, Keflex, oxybutynin, atorvastatin, cyclobenzaprine 5mg qhs, diclofenac sodium 50mg BID. Exam: Chest wall with obvious spasm in the pectoral muscle on the left side with contraction and shortening and tenderness on palpation. Pt has no leg edema, but quadriplegia and contracture of the upper extremities muscles. A&Ox4. EKG NSR.	25-31

		ED Course/plan: Pt presenting right now is mostly 2/2 muscular pain but he has multiple risk factors for coronary artery disease including age and hx of HTN. EKG negative and troponins both negative. CXR negative. Pt was feeling better after initial treatment with Toradol and muscle relaxants. Outpatient presentation is typical of muscular pain. He was instructed about the proper need for PT at home in addition to muscle relaxant and NSAID use. F/u PCP 2-3 days. Discharged home. Impression: 1. Chest wall pain	
6/27/22	Complaint	**Complaint**	1-11

The above is a chronology based on the medical records provided and may include abbreviations or misspellings.

CURRENT TREATING PROVIDERS
Firelands Physician Group, Gloria Johns, DO, every 3 months, Advanced Neurological Associates Nicole Danner, DO, was going for Botox, Firelands Physician Wound Care Center, has an appointment coming up, Dr. Noble, urology for suprapubic catheter.

CURRENT TREATMENT PLAN
Home health aide Monday through Friday, 9am to 1pm. Skilled nurse twice per week for dressing changes and assessment, physical therapy twice per week. He should be participating in a home exercise program as well, but this is limited due to his limited caregivers.

REVIOUS OF SYSTEMS
Integumentary-Mr. Lately and Christine report pressure ulcers, "shiny" skin, skin breakdown, range of motion issues, itching that is improved, and temperature regulation issues. Christine states he likes to be hot. History of blisters.

Vision/eyes/ears/nose/throat-wears bifocals that he wore before the accident, denies swallowing issues, on a regular diet. He is missing his front teeth. Wears hearing aids.

Musculoskeletal-He has chronic pain all over, rating it 8/10. He reports nothing makes it better. He doesn't like to take pain medication as it sometimes hurts his stomach. He has stiffness, contractures, muscle cramps and muscle spasms that are still really bad.

Neurologic-He just started getting right sided headaches. Dizziness sometimes with standing but this is better than right after the accident. Neuropathic pain. Numbness in his hands and feet and from his neck down. He feels pins and needles.

Cardiovascular-chest pain every now and then. Reports blood pressure has been stable

Gastrointestinal-indigestion, abdominal pain, has had weight loss. Normal weight pre accident was 170lb, now is 151lb.

Bowel/bladder-Currently has a suprapubic catheter due to the kidney stones. He reports this will be coming out and they will be going back to using the condom catheter. He was getting frequent UTI's, roughly every 2-3 months. On bowel program. Usually has a BM once per day. Pre accident was once every other day. He can tell when he needs to have a bowel movement as he feels pressure. Christine sometimes has to give him an enema. He gets partial erections with changing and at random times, he is unable to get a full erection. Was very sexually active before the accident more than 5 times per week per Christine. Has not been able to be intimate after the accident.

Cognitive/psychosocial-Christine reports that he gets easily frustrated, anxiety, irritable, agitation, verbal outburst, sleep disturbance, anger, change in weight, more fussy, but comments he doesn't forget anything. Michael denies any cognitive or psychosocial symptoms. He does report that his brain is slow now, but that he has a good memory and feels with it.

Communication-Expression, writing/typing issues. Able to write M and L now, must put the pen in his hand and put paper to him.

Self care-Michael is dependent on all activities of daily living. He is dependent with eating, grooming, bathing, dressing, and toileting. He is able to feed himself finger foods when placed on his bedside table but requires to be fed for most meals. His shower is not conducive for a wheelchair and is too tight, so he only gets bed baths. Medical care, self care, transferring, mobility, cooking, cleaning, laundry are all performed by the home health aide, Christine or other family members. He currently rents his appartement for $400/month. They use a transportation service for transport to doctor's visits or therapy.

He currently has a hoyer lift that is a crank and not being used, hospital bed, platform walker, electric wheelchair, a manual wheelchair that was a donation, bedside commode, bedside table, and medical supplies to include dressing changes, gloves, pads.

He is married to Christine Lately. They have 3 children together. He has a total of 9 children and 11 grandchildren. Christine and him are currently separated, living in separate homes. Christine still comes over daily to care for him. He doesn't drink. He smokes cigarettes. He was working 40 plus hours as a tow driver. He used to work 6 or 7 12 hour shifts. He used to enjoy working out, martial arts, dancing, and going to the gym. He has no hobbies now. He enjoys playing chess with a friend. He reports a typical day and waking up, being fed once the aide arrives, bowel clean up if he's had a bowel movement, bed bath, lays in bed, is fed lunch, lays in bed and eats dinner and then stays up watching shows. His goal is to walk again and go to the Special Tree Rehab program in Romulus Michigan to get his strength back.

PHYSICAL EXAMINATION

Height 5'10". Weight 151 pounds. He notes his normal is weight is 170 pounds. Heart rate 98. O2 99% room air. BP 130/84. Cranial nerves II-XII within normal limits. Neck supple without JVD. Cardiac regular rate and rhythm without murmur, rub or gallop. Lungs CTA. Abdomen positive bowel sounds, soft, LLQ suprapubic tube to foley bag. Numerous tattoos bilateral upper extremities, bilateral pectoralis, posterior neck. Small skin tear area from right nephrostomy tube, left nephrostomy tube site covered with dressing clean, dry, intact. Posterior buttocks flat, atrophied, thickened skin over superior buttocks. Discolored from healed old pressure ulcers. Quarter size stage 2-3 g slit decubitus ulcer, ½ cm deep. Right anterior chest picc line dressing site clean, dressing, intact. Otherwise, dry scaly feet and hands. Peripheral pulses 2+ and symmetric with a rate of 80. Reflexes were 3+ brisk in bilateral upper extremities. Hoffman could not be checked due to hand contracture. Sustained clonus left ankle. 3 beat of nonsustained clonus right ankle. Sensation impaired from the neck down. The right upper extremity wrist extension neutral. Fingers full extension with right 4th finger deformity. Fisting 50% normal. Wrist flexion normal. No ulnar or radial deviation. 60° supination, full pronation. Right elbow extension -60°, full elbow flexion. Abduction 60°. External and internal rotation 45°. Left upper extremity with wrist extension neutral, claw deformity with 5th digit, fisting 50% normal. 45° supination, full pronation and flexion. 45° elbow extension, abduction 80°, 60° internal rotation, 45° external rotation. Bilateral lower extremities -10° neutral, dorsiflexion, inversion, eversion, plantar flexion. Strength bilateral upper extremities with 3+/5 shoulders, deltoids, biceps 4-/5, triceps 3-/5, wrist extension 0, flexion 3+/5, hand intrinsics 0/5. Bilateral lower extremities hip flexors 3-/5, quads 4-/5, plantar flexion, hamstrings 3-/5, no inversion or eversion. 0/5 EHL. Generalized spasticity affecting all four extremities equally. Able to recall ball and umbrella, needed clue for yellow. In serial 7's stated 7, 14, 21, 28, 31. Able to add quarter, time, nickel, penny to 41 cents. Trouble spelling WORLD. Unable to spell it backwards. States date as July 24, 2023. Able to state the last holiday, unsure of the next holiday. Unable to attempt standing. Max assist of 1 to turn over in bed.

IMPRESSION/PLAN

Based on a reasonable degree of medical certainty and probability, based on my examination, life care plan questionnaire, review of medical records, I will make the following statements and opinions. Michael sustained a moderate traumatic brain injury and C2 ASIA C spinal cord injury related to the motor vehicle accident of 6/28/20. The following conditions are also related to the motor vehicle accident: neurogenic bowel, neurogenic bladder, cognitive deficits, behavioral deficits, decubitus ulcers, spasticity, contractures, chronic pain, chronic neuropathic pain, deconditioning.

Recommendations of future life care planning based on the above diagnoses would include primary care physician 2-4 additional times per year lifelong, physiatrist 4x year lifelong for therapy orders, DMEs, and medications, pain management 4x year lifelong for management of medications including nerve stabilizers, narcotics, baclofen pump, orthopedist 8-10 times over lifetime for overuse injuries, fall risk, neurologist every 3 months lifelong for botox and monitoring of late onset seizures, dementia, movement disorder that he is at risk for due to his moderate traumatic brain injury, urologist 2x year lifelong for management of neurogenic bladder, condom catheter versus suprapubic and monitoring of UTIs, psychiatrist yearly for medication management, psychotherapy 24 visits per year for 3 years, then 12 visits per year lifelong, endocrinology 3-5 times over lifetime for increased risk of pituitary dysfunction, wound specialist anticipate 36 visits every 3 years for ongoing ulcers and risk of future decubitus ulcers, and podiatry every 8-10 weeks lifelong. Neurosurgery yearly visits with more likely than not at least one level extension of his ACDF currently at
C3-5. Associated fees for work up and hospitalization for this surgery.

Due to his severe spasticity, I would anticipate him benefiting from a baclofen pump. This has previously been discussed with him with his providers. Botox 400 units every 3 months lifelong, this can be distributed to upper and/or lower extremities at different intervals.

Therapy includes a neuropsychological evaluation once over lifetime, physical and occupation therapy 36 to 48 visits yearly lifelong, speech therapy 12 to 24 visits 3 times over his lifetime, recreational therapy 24 to 36 visits over life expectancy.

Lab work to include CBC, CMP 2-4 additional times per year, sedimentation rate/CRP 4-6 over life expectancy, urinalysis, and C&S 4-6 per year lifelong, pituitary labs to include IGF-1, prolactin, vitamin D, cortisol, free and total testosterone, and TSH twice over life expectancy, vitamin D level 4-6 over life expectancy, and Botox antibodies twice over life expectancy. Imaging to include cervical 4 view x-rays yearly, MRI cervical every 5 years, head CT 4-6 over lifetime related to increased fall risk, bone density scan every 2 years, venous doppler study 4-6 over lifetime.

Medications include gabapentin 300mg TID, senna 8.6mg nightly, oxybutynin 5mg TID, baclofen 10mg, TID, baclofen 20mg TID, diclofenac 50mg BID, iron daily. Prn suppository. He is prescribed citalopram but was not taking it, however this or something similar should be included. These will need to be continued lifelong. He is currently taking trospium chloride, cipro, oxycodone, and lovenox related to his kidney stones and are not needed lifelong. Neurology will likely recommend Namenda or Aricept in the last 10 years of life due to dementia risk with moderate TBI, yet this will not be included in the life care plan.

DME/medical supplies to include hospital bed with low air flow mattress, motorized wheelchair with joystick control, tilt n space, hi-low option; custom fit manual lightweight wheelchair; platform walker; electric Hoyer lift; bedside commode; raised toilet seat; bedside table; handheld shower with anti-scald valve; shower/grab bars; ramp; standing frame; recliner lift chair; assistive technology; bilateral custom fit KAFO for standing. Medical supplies to include condom catheters and foley bag, gloves, pads.

He currently is renting his home for $400 per month. He would benefit from a handicap accessible apartment with widened doorways, ramps, low kitchen counters, roll in shower, etc. Home health aide 24/7 for ADLs, mobility, safety as he is mostly dependent in all activities of daily living. Skilled nurse to come out every 1-2 weeks to assess skin breakdown, dressing changes, monitor of condom cath, UTIs.

He will need a handicap accessible van for transportation to doctor's appointments, therapy, recreational activities. Handicap parking permit.

House cleaning service two times per month. Home maintenance/lawn care 4 to 6 hours per month. Nurse case manager 4 to 6 hours per month.

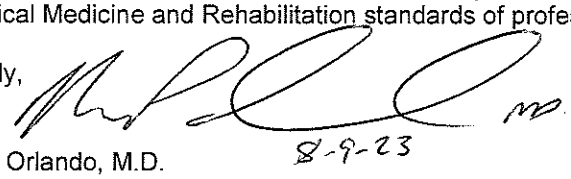
I anticipate he will have a decreased life expectancy. He will be unable to return to work.

It was my pleasure to see, assist and render an opinion as it relates to this independent medical examination.

The above analysis is based upon the available information provided to me as well as the physical examination. It is assumed that the information provided to me is correct. If more information becomes available later, an additional report may be requested. Such information may or may not change the opinions rendered in this evaluation. The opinions I have expressed are based upon reasonable probability and certainty and are focused on the issues requested.

I am an independent examiner and have formulated my opinion and diagnosis independent of the referral source, remuneration or other opinions or personal bias. I have not provided care for the claimant. I declare that the information contained within this documentation was prepared and is the work product of the undersigned and is true to the best of my knowledge and information. I attest that I adhere to the Academy of Physical Medicine and Rehabilitation standards of professionalism for expert opinion and testimony.

Sincerely,



Marc P. Orlando, M.D.
Board Certified, Physical Medicine and Rehabilitation
Medical Director Pain Services
Mayfield Spine Surgery Center

Table 2. Life table for males: United States, 2020—Con.

Spreadsheet version available from: https://ftp.cdc.gov/pub/Health_Statistics/NCHS/Publications/NVSR/71-01/Table02.xlsx

Age (years)	Probability of dying between ages x and $x+1$ q_x	Number surviving to age x l_x	Number dying between ages x and $x+1$ d_x	Person-years lived between ages x and $x+1$ L_x	Total number of person-years lived above age x T_x	Expectation of life at age x e_x
60–61	0.013599	82,736	1,125	82,174	1,700,138	20.5
61–62	0.014668	81,611	1,197	81,013	1,617,964	19.8
62–63	0.015723	80,414	1,264	79,782	1,536,951	19.1
63–64	0.016751	79,150	1,326	78,487	1,457,169	18.4
64–65	0.017793	77,824	1,385	77,132	1,378,682	17.7
65–66	0.018910	76,439	1,445	75,717	1,301,551	17.0
66–67	0.020241	74,994	1,518	74,235	1,225,834	16.3
67–68	0.021617	73,476	1,588	72,682	1,151,599	15.7
68–69	0.023122	71,888	1,662	71,057	1,078,917	15.0
69–70	0.024700	70,226	1,735	69,358	1,007,860	14.4
70–71	0.026327	68,491	1,803	67,589	938,502	13.7
71–72	0.028145	66,688	1,877	65,749	870,913	13.1
72–73	0.030318	64,811	1,965	63,828	805,163	12.4
73–74	0.032487	62,846	2,042	61,825	741,335	11.8
74–75	0.036455	60,804	2,217	59,696	679,510	11.2
75–76	0.039507	58,588	2,315	57,430	619,814	10.6
76–77	0.043893	56,273	2,470	55,038	562,384	10.0
77–78	0.048013	53,803	2,583	52,511	507,346	9.4
78–79	0.053409	51,220	2,736	49,852	454,835	8.9
79–80	0.058234	48,484	2,823	47,072	404,983	8.4
80–81	0.064014	45,661	2,923	44,199	357,910	7.8
81–82	0.070301	42,738	3,005	41,236	313,711	7.3
82–83	0.077280	39,733	3,071	38,198	272,475	6.9
83–84	0.086551	36,663	3,173	35,076	234,277	6.4
84–85	0.095951	33,490	3,213	31,883	199,201	5.9
85–86	0.107089	30,276	3,242	28,655	167,319	5.5
86–87	0.116675	27,034	3,154	25,457	138,663	5.1
87–88	0.130906	23,880	3,126	22,317	113,207	4.7
88–89	0.146410	20,754	3,039	19,234	90,890	4.4
89–90	0.163192	17,715	2,891	16,270	71,656	4.0
90–91	0.181227	14,824	2,687	13,481	55,386	3.7
91–92	0.200462	12,138	2,433	10,921	41,905	3.5
92–93	0.220810	9,705	2,143	8,633	30,984	3.2
93–94	0.242150	7,562	1,831	6,646	22,351	3.0
94–95	0.264330	5,731	1,515	4,973	15,705	2.7
95–96	0.287167	4,216	1,211	3,611	10,731	2.5
96–97	0.310455	3,005	933	2,539	7,121	2.4
97–98	0.333969	2,072	692	1,726	4,582	2.2
98–99	0.357477	1,380	493	1,133	2,856	2.1
99–100	0.380747	887	338	718	1,723	1.9
100 and over	1.000000	549	549	1,005	1,005	1.8

SOURCE: National Center for Health Statistics, National Vital Statistics System, Mortality.

Curriculum Vitae of Marc P. Orlando, M.D.

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Email: marcincorlando@gmail.com
Phone: (513) 252-4042

Education:	University of Cincinnati College of Medicine Cincinnati, Ohio Doctor of Medicine, 1993 Bowling Green State University Bowling Green, Ohio B.S. Magna Cum Laude Physical Therapy, 1988
Residency:	University of Cincinnati College of Medicine Physical Medicine and Rehabilitation/Internal Medicine Combined Residency Program Cincinnati, Ohio 1993-1998
Board Certification:	Recertification Physical Medicine and Rehabilitation, 2018 Recertification Physical Medicine and Rehabilitation, 2008 Board Certified-Physical Medicine and Rehabilitation, 1999 Board Certified-Internal Medicine, 1998-2008
State License:	Medical License, State of Ohio 35-06-7491, 1993-present Medical License, State of Kentucky 46877, 2014-present Physical therapy License, State of Ohio 4791, 1989-2000
DEA Number:	Ohio - BO4185775
Positions:	Physician, Mayfield Clinic, Physical Medicine and Rehabilitation Cincinnati, Ohio 2014–Present CEO/Founder, Medical Director of M.A.R.C., Inc. Medical Associates and Rehabilitation Consultants Cincinnati, Ohio 2003-Present Pain Management Medical Director, Mayfield Spine Surgery Center (Formerly The Christ Spine Surgery Center)

Positions (cont.)

Cincinnati, Ohio
2011-Present

Staff Physician, Physical Medicine and Rehabilitation, Good Samaritan/Bethesda North Hospitals
Cincinnati, Ohio
1998-Present

Teaching Attending, Physical Medicine and Rehabilitation, Bethesda Family Medicine Residency Program, ACGME Accredited Program
Cincinnati, Ohio
2012-Present

Physician Consultant, SI-BONE
2016-Present

Physician Consultant, Nevro
2018-Present

Mayfield Spine Surgery Center Board Member, Mayfield Spine Surgery Center
Cincinnati, Ohio
2019-Present

Physician, Division Director, Mayfield Clinic, Physical Medicine and Rehabilitation
Cincinnati, Ohio
2014-2022

Member Medical Advisory Committee, Mayfield Spine Surgery Center
Cincinnati, Ohio
2016-2019

Medical Director, TriHealth Orthopedic and Spine Institute
Cincinnati, Ohio
2014-2017

Physician Consultant, Medtronic Neuromodulation
Minneapolis, MO
2011-2016

Consultant/Member of Medtronic Pelvic Pain Advisory Board
Neuromodulation in the Treatment of Interstitial Cystitis/Bladder Pain Syndrome and Chronic Prostatitis/ Chronic Pelvic Pain Syndrome
2015

Advisory Board, Doctor of Physical Therapy Program,
The College of Mount Saint Joseph
Cincinnati, Ohio
2013–2015

Physician/Partner Group Health Associates, Physical Medicine and Rehabilitation

Positions (cont.)

Cincinnati, Ohio
1998-2014

Spine Task Force, Mayfield Spine Institute
Cincinnati, Ohio
2008-2012

Senior Leadership Team, Group Health Associates
Cincinnati, Ohio
2007-2012

Medical Director, Pain Management, Mercy Hospital Mt. Airy
Cincinnati, Ohio
2007-2012

CEO/Founder, Medical Director, Rehab Transitional Care Partners
Cincinnati, Ohio
2005-2012

Compensation Committee Group Health Associates
Cincinnati, Ohio
2005-2012

Medical Director of Rehabilitation, Heritage Springs Skilled Nursing Facility
West Chester, Ohio
2005-2012

Medical Director of Rehabilitation, Loveland Health Care Center
Loveland, Ohio
2005-2012

Finance Committee, Group Health Associates
Cincinnati, Ohio
2004-2012

Department Director of Musculoskeletal Medicine (Orthopedics, Podiatry, Rheumatology, Physical Medicine & Rehabilitation), Group Health Associates
Cincinnati, Ohio
2001-2012

Medical Director of Rehabilitation, The Home at Hearthstone, Skilled Nursing Facility
Cincinnati, Ohio
2003-2011

Medical Director of Neurological Rehabilitation Select Hospitals
Cincinnati, Ohio
2003-2008

Medical Executive Committee, Butler Surgery Center
Cincinnati, Ohio

Positions (cont.) 2006-2008

Medical Staff Selection Committee, Good Samaritan Hospital
Cincinnati, Ohio
2004-2007

Medical Director of Rehabilitation Services,
Communicare of Clifton, Skilled Nursing Facility
Cincinnati, Ohio
2002-2007

Medical Executive Committee, HealthSouth Surgery Center
Cincinnati, Ohio
2003-2005

Medical Director of Work Hardening Program, NOVA Care
Cincinnati, Ohio
2003-2004

Medical Director of Rehabilitation, Clermont Convalescent and Nursing Home
Cincinnati, Ohio
2003-2004

Assistant Adjunct Professor, University of Cincinnati College of Medicine
Physical Medicine and Rehabilitation Department
Cincinnati, Ohio
2001-2004

Board of Directors for Group Health Associates
Cincinnati, Ohio
2001-2003

House Doctor, Mercy Fairfield Hospital
Fairfield, Ohio
1996-1999

Urgent Care Physician, Group Health Associates
Kenwood/Clifton/Cincinnati, Ohio
1994-1999

Resident Physician, University of Cincinnati College of Medicine
Cincinnati, Ohio
1993-1998

Staff Physician, Spectrum Rehabilitation Services, Annual Athletic Physical
Cincinnati, Ohio
1994-1995

Obstetrics and Gynecology Extern, The Christ Hospital
Cincinnati, Ohio
1991-1993

Positions (cont.)

Licensed Physical Therapist, Independent Contractor for Powell and Slausen
Cincinnati, Ohio
1990-1991

Licensed Physical Therapist, Youngstown Physical Therapy, Inc.
Youngstown, Ohio
1988-1990

Presentations:

Spinal Cord Stimulation: Treatment Option for Chronic Pain from Diabetic Neuropathy
Indiana Podiatric Medical Association's Fall Convention
Indianapolis, IN October 14, 2022

Nevro Didactic Dinner Program Presentation
Indianapolis, IN October 13, 2022

Diabetic Neuropathy Indication for SCS
Winter Clinics for Cranial & Spinal Surgery
Snowmass, CO March 2022

Spinal Cord Stimulation: Treatment Option for Chronic Pain from Diabetic Neuropathy
Mayfield Patient Webinar https://youtu.be/ly52xRvrr1E
Cincinnati, OH October 2021

PDN Expert Seminar
Nevro Course Facilitator
Indianapolis, IN Sept 9, 2021

PDN Expert Seminar
Nevro Course Facilitator
Columbus, OH Sept 9, 2021

Advancing Indications Through Clinical Evidence
Nevro Physician Consultant
Cincinnati, OH July 2021

More Evidence in More Pain Areas
Nevro Physician Consultant
NANS 2020, Las Vegas, NV

Diagnosis and Treatment of the SI Joint
SI-BONE
Virtual, November 3, 2020

Advanced Practice Provider and Fellows Meeting
Nevro Course Facilitator
Cincinnati, OH October 2020

Diagnosis and Treatment of the SI Joint
SI-BONE
Virtual, July 30, 2020

Presentations (cont.)

Diagnosis and Treatment of the SI Joint
Si Bone National Sales Meeting
Clearwater, FL January 8, 2020

Advanced Practice Provider Symposium
Nevro Course Facilitator
Cincinnati, OH Oct 5, 2019

Queen City Regional Meeting-Nevro
Cincinnati, OH April 2019

HF10 Spinal Cord Stimulation
Patient Education Event
Cincinnati, OH March 14, 2019

Spinal Cord Stimulation: Trends & Future
Winter Clinics for Cranial & Spinal Surgery
Snowmass, Colorado February 2019

Broadening Horizons in Neuromodulation
Physican Education Event
NANS January 2019

Do I Have to Have Surgery?
TriHealth Seniority Focus on the Spine lecture series
Cincinnati, OH October 2018

HF10 Therapy Education Summit
Nevro
Atlanta, GA June 22-23, 2018

Diagnosis and Treatment of the SI Joint
SI-BONE
Columbus, OH February 5, 2018

Revolutionizing SCS with HF10 Therapy
Winter Clinics for Cranial & Spinal Surgery
Snowmass, Colorado February 2018

Diagnosis and Treatment of the SI Joint
Si Bone National Sales Meeting
Hollywood, FL January 18, 2018

Diagnosis and Treatment of the SI Joint
Si Bone
Louisville, KY October 27, 2017

HF-10 Spinal Cord Therapy: A New Option for Chronic Pain
Nevro
Cincinnati, OH October 2017

Presentations (cont.)

Diagnosis and Treatment of the SI Joint
SI-BONE
Columbus, OH August 30, 2017

Diagnosis and Treatment of the SI Joint
SI-BONE
Norwood, OH August 12, 2017

S*I-BONE Primary Surgeon Training Program*
Cincinnati, OH, August 5, 2017

Diagnosis and Treatment of the SI Joint
SI-BONE
Chicago, IL July 15, 2017

Diagnosis and Treatment of the SI Joint
SI-BONE
Chicago, IL, June 6, 2017

New Back Therapy Offers Relief for Patients
Local 12 WKRC-TV
Cincinnati, OH May 11, 2017

SI-BONE Primary Surgeon Training Program
Chicago, IL, April 22, 2017

SI-BONE Primary Surgeon Training Program
Miami, FL, March 4, 2017

Shooting at the Right Target: Hip, Low Back, or SI Joint Pain?
Winter Clinics for Cranial & Spinal Surgery
Snowmass, CO February 2017

Opiate Laws & Requirements and Impact on Practice
Winter Clinics for Cranial & Spinal Surgery
Snowmass, CO February 2017

Therapy Options for Managing Your Chronic Pain
Boston Scientific
Cincinnati, OH February 2016

Therapy Options for Managing Your Chronic Pain
Boston Scientific
Cincinnati, OH January 2016

Options for Managing Chronic Pain
Medtronic
Cincinnati, OH November 2015

Shooting at the Right Target: Hip, Low Back, or SI Joint Pain?
Winter Clinics for Cranial & Spinal Surgery
Snowmass, Colorado 2015

Presentations (cont.) *Persistent Lumbar Radiculopathy: More Surgery vs. Spinal Cord Stimulation*
Winter Clinics for Cranial & Spinal Surgery
Snowmass, Colorado 2014

Therapy Options for Managing Your Chronic Pain
Mayfield Clinic & Boston Scientific
Cincinnati, OH 2014

Sure Scan MRI Compatible Cadaver Training Program for Neurosurgeons and Pain Physicians
Christ Spine and Surgery Center
Cincinnati, OH 2013

Epidural Steroid Injections: The General Consensus
Winter Clinics for Cranial & Spinal Surgery
Snowmass, Colorado 2013

Basics Skills Lab for Medtronic Neuromodulation
Cincinnati, OH January 2012

Interventions and Communication Techniques with Drug Seeking Patients
Bethesda North Care Coordinators, April 2011
West Chester Medical Center, Faculty April 2011
Christ Hospital, Faculty May 2011
Venetian Gardens, Faculty May 2011
Atrium Medical Center, Faculty July 2011
Mercy Fairfield Hospital, Faculty August 2011
Mercy Anderson Hospital, Faculty August 2011
Good Samaritan Hospital, Faculty August 2011

Chronic Pain: Treatment Options for Women
Good Samaritan Hospital, Community July 2010
West Chester Medical Center, Faculty November 2010
Bethesda North Hospital, Faculty November 2010

Exceeding Rehab Expectation Through Post-Acute D/C Options
Bethesda North Hospital, Care Coordinators December 2009
Good Samaritan Hospital, Care Coordinators February 2010

Physiatry in Pain Management
Grand Rounds Good Samaritan Physicians
November 2008

Role of the Physiatrist in the Nursing Home
Christ Hospital Discharge Care Coordinators
July 2008

Chronic Pain
TriHealth Physician Symposium, November 2008
Bethesda North Patient Information/Senior Services, September 12, 2008
Good Samaritan Patient Information/Senior Services, September 11, 2008

Presentations (cont.) *Who You Going to Call?*
Good Samaritan Hospital, Community January 2007
Mountain Crest Nursing Home, Community February 2008
Mountain Crest Nursing Home, Faculty April 2008
Mountain Crest Nursing Home, Open House July 2008

Physiatry and Treatment of Low Back Pain
Drake Hospital, Care Coordinators May 2007

Physiatry and Pain Management
Good Samaritan Hospital, Care Coordinators September 2006
Bethesda North Hospital, Care Coordinators October 2006
Jewish Hospital Kenwood, Care Coordinators August 2007

The Role of the Physiatrist in a Nursing Home
Bethesda North Hospital, Care Coordinators November 2006
Bethesda North Hospital, Social Workers March 2007
Jewish Hospital, Care Coordinators and nurses March 2007
Middletown Regional Hospital, Faculty October 2007
Mercy Fairfield Hospital, Social Workers November 2007
Mercy Mt Airy Hospital, Faculty May 2009
West Chester Medical Center, Social Workers January 2010
Mercy Fairfield Hospital, Care Coordinators March 2010
Christ Hospital, Faculty May 2010

New Horizons in Pain Management
Faculty, Marriott Kingsgate Conference Center
Cincinnati, Ohio November 2003

Dealing with Chronic Pain. Challenges and Opportunities
Faculty, Marriott Kingsgate Conference Center
Cincinnati, Ohio November 2003

Carpal Tunnel Syndrome, Diagnosis and Treatment
Chairman's Rounds for the Internal Medicine Department
University of Cincinnati College of Medicine

Diagnosis and Treatment of the Neurogenic Bladder
Medicine Grand Rounds, University of Cincinnati College of Medicine October 1996

Electromyographic Evaluation of the Vastus Medialis Obliques in Patellofemoral Dysfunction
Oral presentation at PM&R Academy Meeting, October 1996

Diagnosis and Treatment of Anterior Knee Pain
Grand Rounds for PM&R, University of Cincinnati College of Medicine, March 1996,
Medical Rounds University of Cincinnati College of Medicine, October 1998

Introduction to Electomyography
University of Cincinnati, Physical Therapy Curriculum Lecture,

Presentations (cont.) February 1996, March 1997, February 1998
College of Mount St. Joseph Physical Therapy Lecture, February 1999

Heparin Induced Hyperkalemia. Two Case Reports
Orlando MP, Dillon ME, O'Dell MW: Abstract presented at
Physical Medicine and Rehabilitation Academy Meeting
November 1995

Theories in Stroke Rehabilitation
Grand Round for Physical Medicine and Rehabilitation
Department, University of Cincinnati College of Medicine,
March 1995, Drake Hospital, April 1995

Medical Complications in Traumatic Brain Injury
Drake Hospital, Traumatic Brain Injury Staff Lecture
December 1994

Guest Speaker - Junior High Academic Awards Banquet,
Poland, Ohio, October 1992

Videos: The SI Joint | Low Back Pain's Missing Piece - Part 1 (Non-surgical treatment)

Mayfield Minute: Spinal Injections
https://youtu.be/a81stYnupHk

HF10 Spinal Cord Stimulation: Part 1 Trial
https://youtu.be/h-OdEQFGHZI

Cervical Epidural Steroid Injections
https://youtu.be/cfh4D9VMtao

Lumbar Epidural Steroid Injections
https://youtu.be/TJxf4P9iVRc

Publications: Spinal Cord Stimulation , January 2021
https://www.mayfieldclinic.com/pe-stim.htm

New relief available for patients with painful diabetic condition
Mayfield Brain & Spinal Column Blog, Aug. 19, 2021
https://mayfieldclinicblog.com/?p=5898

Mayfield's position on medical marijuana explained
Mayfield Brain & Spinal Column Blog, March 24, 2020
https://mayfieldclinicblog.com/?p=5563

Know your child's backpack limits for optimal spine health
Mayfield Brain & Spinal Column Blog, July 29, 2019
https://mayfieldclinicblog.com/?p=5478

Joint Injections, September 2018
https://www.mayfieldclinic.com/pe-jointinjections.htm

Nerve Block Injection Test, September 2018

Publications (cont.) https://www.mayfieldclinic.com/pe-nerveblocks.htm

Nerve Radiofrequency Ablation, September 2018
https://www.mayfieldclinic.com/pe-rf_ablation.htm

Epideral Steroid Injections, July 2018
https://www.mayfieldclinic.com/pe-esi.htm

Living Well on the Pain Scale with Spinal Cord Stimulators
Mayfield Brain and Spine Column, by Cindy Star
February 2016
https://mayfieldclinicblog.com/?p=4265

Healthier Spine, Happier Life
Lead Magazine, by JK Klaiber
Volume 2, 2016

Orlando MP, Dillon ME, O'Dell MW. Abstract: *Heparin induced hyperkalemia confirmed by drug recalling*: American Journal Of Physical Medicine & Rehabilitation January/February 2000: p93-96

Orlando MP, Brady RC, Schumacher HR. *Pseudo-meningitis secondary to accidental tap of a paraspinal lymphatic vessel.* Clinical Infectious Disease 1998; 26 (January)

Orlando MP, Sherman MO. Correspondence on Corticosteroid Injections for Sciatica. The New England Journal of Medicine October 23, 1997: p1242

Orlando MP, Limke JC, Colisimo AJ, O'Dell MW. *Testing Reflex inhibition of the vastus medialis obliques and anterior knee pain; a surface electromyographic study.* Archives of Physical Medicine and Rehabilitation September 1966: p929

News: *Newer treatment could help those with diabetes, nerve pain*
Report on Local 12 News
Sept. 14, 2021

COVID-19 vaccine: Should you get a shot ahead of surgery? Timing is everything
Cincinnati Enquirer
Feb. 15, 2021

Mayfield Brain & Spine holding informational session on new therapy for back pain
report on Local 12 News
March 13, 2019

iFuse offers long-term treatment option for SI joint pain patients
Report in Becker's Spine Review
Sept. 26, 2019

New back therapy offers relief for patients

Report on Local 12 News
May 11, 2017

School is back, but don't let it burden your children's backs
Report on WCPO-TV
August 21, 2017

Breaking free from back pain: New system reduces pain without buzzing, tingling
Report on Local 12 News
Sept. 26, 2017

Research:

A Prospective Observational Multicenter Study of HF10 Therapy in Patients who Previously Failed Traditional SCS (RENEW study)

A Prospective Observational Multicenter Study of HF10 Therapy Using Surgical Leads (SURPASS study)

Preceptorships:

Preceptorship with Dr. Silka
February 28, 2020
Cincinnati, Ohio

Preceptorship with Dr. Brenda Beck
August 5, 2020
Cincinnati, Ohio

Professional Society Memberships:

American Medical Association
American Academy of Physical Medicine and Rehabilitation
International Spinal Interventional Society
Ohio State Medical Association
North American Neuromodulation Society

Awards:

TOP DOC-Cincinnati Magazine
Pain Management, 2007
Physical Medicine and Rehabilitation, 2007

TOP DOC-Cincinnati Magazine
Pain Management, 2008
Physical Medicine and Rehabilitation, 2008

TOP DOC-Cincinnati Magazine
Physical Medicine and Rehabilitation, 2010

America's Top Physicians
Physical Medicine and Rehabilitation, 2010

Consumer's Research Council
Physical Medicine and Rehabilitation, 2010

TOP DOC-Cincinnati Magazine
Pain Management, 2011
Physical Medicine and Rehabilitation, 2011

TOP DOC-Cincinnati Magazine
Pain Management, 2012
Physical Medicine and Rehabilitation, 2012

TOP DOC-Cincinnati Magazine
Pain Management, 2013
Physical Medicine and Rehabilitation, 2013

Americas Top Physicians
Physical Medicine and Rehabilitation 2014
Consumers Research Council
Physical Medicine and Rehabilitation 2014

TOP DOC-Cincinnati Magazine
Pain Management, 2014
Physical Medicine and Rehabilitation, 2014

TOP DOC-Cincinnati Magazine
Pain Management, 2015
Physical Medicine and Rehabilitation, 2015

TOP DOC-Cincinnati Magazine
Pain Management, 2016
Physical Medicine and Rehabilitation, 2016

The Leading Physicians of the World
Doctors of Excellence
Physical Medicine and Rehabilitation, 2016

TOP DOC-Cincinnati Magazine
Pain Management, 2017
Physical Medicine and Rehabilitation, 2017

The Leading Physicians of the World
Doctors of Excellence
Physical Medicine and Rehabilitation, 2017

Castle Connolly's Top Doctor
Physical Medicine and Rehabilitation, 2017

TOP DOC-Cincinnati Magazine
Pain Management, 2018
Physical Medicine and Rehabilitation, 2018

Castle Connolly's Top Doctor
Physical Medicine and Rehabilitation, 2018

TOP DOC-Cincinnati Magazine
Pain Management, 2019
Physical Medicine and Rehabilitation, 2019

Castle Connolly's Top Doctor

Physical Medicine and Rehabilitation, 2019

TOP DOC-Cincinnati Magazine
Physical Medicine and Rehabilitation, 2020

Castle Connolly's Top Doctor
Physical Medicine and Rehabilitation, 2020

TOP DOC-Cincinnati Magazine
Pain Management, 2021
Physical Medicine and Rehabilitation, 2021

Castle Connolly's Top Doctor
Physical Medicine and Rehabilitation, 2021